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THE UNIVERSITY OF ALBERTA

GRADUATE STUDENTS AND STRESS:
A LIFE EVENTS PERSPECTIVE

BY

PATRICIA LYNNE HAMES-SHEEHY

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
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OF DOCTOR OF PHILOSOPHY

IN

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled GRADUATE STUDENTS AND STRESS: A LIFE EVENTS PERSPECTIVE submitted by PATRICIA LYNNE HAMES-SHEEHY in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Counselling Psychology.

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In memory of JC320, who made the difference.

ABSTRACT

Many identifiable stressors can be associated with commencing and completing graduate studies. Recent research has focused on the relationship between stressful life events and both physical and emotional symptomatology.

The present study utilized the Stress Audit Questionnaire as an instrument for quantifying levels of stress among graduate students in six departments at Queen's University in Kingston, Ontario. In addition, interviews were conducted with 10% of the subjects to gather qualitative data on the experience of being a graduate student.

A quantitative analysis indicated that the subjects in this study exhibited scores on the Stress Audit Questionnaire that were average when compared to the normative sample. The quantitative results also indicated that there were differences between the departments, between the sexes, and on the variable marital status.

The qualitative results revealed individual student experiences which were unique but which also contained similarities. Common issues related to time as a specific stressor, time management strategies, leisure activities as coping strategies, reflections on being a graduate student and the students' outlook on their future in a professional work environment.

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I. INTRODUCTION TO THE STUDY

A. Background to the Study

Yablon, Maykow, Rosner and Levy (1984) state, "stress, a popular term in lay and professional literature, is a complex concept about which there is little general agreement and a vast amount of literature" (p.20). The various opinions emerging from the study of stress, result in numerous definitions of the concept. Definitions range from Selye's (1982) 'stress as a response' premise to Budzynski and Peffer's (1980) perception of 'stress as a discomforting tension, conflict or psychological pressure', to Lazarus' (1982) 'interactional' viewpoint. The definitions, in part, have changed with the evolution of the concept of stress from its origins in the field of physics to it's current applications in the behavioral sciences.

The study of the concept of stress in human beings has followed a path of physiological and psychological investigation. Contemporary psychological investigations have employed life events methods in the exploration of stress in humans. The present study utilizes a life events perspective and favours the definition put forth by Miller, Smith and Mehler (1986) in their biobehavioral model of stress. They define stress as:

> The dynamic state of tension that is created between an organism or structure and its environment (internal or

external) when said organism, or structure, responds to the demands and pressures of said environment (internal and/or external) in order to maintain its integrity (p.1).

Implicit in the biobehavioral model, is the recognition that precipitating events, whether stressful or not, will result in unique responses from different individuals. Their unique interaction with the event will determine their response and consequently the effect that the event will have upon them. In other words, people respond to events in their own way and what is stressful to one is not necessarily stressful to all. Hence, there is a need to recognize that stress is a product of a person's perception and internal processing, as well as a response to an event.

There is a large body of literature suggesting that certain life events or life transitions are possible causal factors for stress in some people. Authors who support this notion include Cole (1985); Dohrenwend, B.P. and Dohrenwend, B.S. (1974) and Monroe (1982). Two of the major contributors to this body of literature are Holmes and Rahe (1967), who posit that any major life event which requires adjustment is stressful, regardless of whether or not the event is pleasant. Some of the life events considered to be possible stressors by Holmes and Rahe include death, divorce, personal finances, vacation, Christmas and outstanding personal achievement.

Beyond the recognition of certain life events as stressful, there has been extensive research focusing on the relationship between stressful life events and both physical and psychological illness. Many authors such as Dohrenwend, B.S., Dohrenwend, B.P, Dodson and Shrout (1984); Cole (1985); Frank, Van Valin and Weinstein (1982); Lazarus (1983) and Miller, Ross and Cohen (1982) have studied and identified relationships between levels of stress and health-related variables such as psychological, somatic and physical symptoms.

Social relationships and their relevance to psychological and physical well-being have also been the focus of many studies examining stress. The literature contains a number of references highlighting the role of social support in alleviating the negative effects of stress. Examples of social support systems include; friends, lovers, marriage partners and community relationships. Haan (1982), Lieberman (1982) and Wills and Langner (1980) are among those who suggest that people who have good social support systems are less likely to experience negative effects when exposed to potentially stressful life events. Turner (1983) suggests that, "variations in social support or social support networks are one factor that importantly influences susceptibility to psychological distress and illness" (p.106).

Graduate Students, Life Transitions and Stress

As with any stage of life, there are many life transitions required to become a student in a graduate or professional department at a university. These transitions can include changes in some of the following; residence, financial status, personal habits, eating habits, sleeping habits, social activities and personal achievement. Utilization of Holmes and Rahe's Social Readjustment Rating Scale for an individual who changes residence and leaves behind a social support system in order to undertake personally financed studies could yield a potential score of 250. According to Yablon, Maykow, Rosner and Levi (1983), a person with a score of between 200 and 299 on this scale has "a moderate or greater than 50% chance of developing a change in health status" (p.21).

It is acknowledged that certain life events are stressful to some and also that stress can lead to physical or psychological disorders. Therefore, as a group, graduate students can be exposed to a set of life changes which may produce stress and potentially lead to illness or dysfunction. In other words some of the life events and transitions that are associated with being a graduate student, may in fact create stress.

Physiological and psychological illness have frequently been related to levels of stress in the current literature dealing with graduate students. Goplerud (1980) states that, "given the substantial empirical support for links between major life changes and a long list of health and emotional disorders, it is not surprising that entrance to graduate school also marks the beginning of a period of high risk for physical and psychological problems among first year graduate students" (p.283). Also, Arnold and Jensen (1983), Bjorksten, Sutherland, Miller and Stewart (1983) and Goodman, Sewell and Jampol (1984) refer to the wealth of clinical information which indicates psychological stress, inhibited learning and a resultant need to seek counselling among university students in general.

In light of the limited amount of literature dealing solely with graduate students as a unique group, the literature review for this study was expanded. The assumption was made that the stressors and the environment of professional school students would be similar to that experienced by graduate students, thus, findings presented in papers on medical, dental, or law student stress could be applicable to a graduate student population.

B. Purpose of the Study

With the previous discussion in mind, it is suggested that the relationship between life events, stress and illness is worthy of inquiry. To go one step further, it can be reasoned that the investigation of life events, stress and illness in a graduate student population is also worthy of inquiry. Therefore, the present study was designed to investigate these relationships with a three-fold purpose.

First, the purpose was to examine the lifestyle of students in a post-graduate program with regard to the amount of stress they experience and the number of physical, somatic and psychological symptoms they exhibit. The intent was to answer the question: To what extent do graduate students experience stress and exhibit symptoms of stress?

With reference to specific lifestyle information concerning vulnerability, nutrition and exercise, the following question was of interest. What are the relationships between levels of stress, symptoms of stress and the measurements of exercise, nutrition and vulnerability to stress?

Secondly, the purpose was to gain a broader picture of the patterns of stress exhibited in a post-graduate population. Related to this purpose was the question: How do levels and symptoms of stress as well as lifestyle differ amongst the various subgroups of a graduate student population? The term subgroup was used to describe the sample when it was divided and grouped by department, marital status, sex, age, thesis/non-thesis, etc..

Thirdly, the purpose was to gather qualitative data through personal interviews with graduate students concerning their lifestyles and experience of stress. The intent was to obtain information regarding both social support and coping resources as well as possible relationships with levels or symptoms of stress in the students' lives, using a method which previously had not been reported in published literature focusing on graduate student stress.

C. Justification for the Study

The link between life events, stress and illness is acknowledged, as is the fact that embarking on a journey of graduate studies can expose an individual to potentially stressful events and activities. Therefore, if through the measurement of levels and symptoms of stress, in conjunction with interviews of individual graduate students' experiences with stress, relationships can be established between the contributing variables, then hopefully some insight can be gained into ways of dealing with the negative consequences of stress.

D. Organization of the Thesis

The purpose of the study was briefly introduced in this chapter. Relevant literature was reviewed in Chapter II and methodology and design was explained in Chapter III. The findings and results of the quantitative data were presented in Chapter IV, while the qualitative results were given in Chapter V. In Chapter VI research findings, conclusions and implications for further research were discussed.

II. RELATED LITERATURE

The following literature review provides background information on the process of defining and measuring stress prior to the introduction of research on the life events approach to the measurement of stress. Subsequent to the life events narrative is the presentation of lifestyle and health information which focuses on nutrition, exercise, social support and coping. Following that, research on stress and graduate students from a life events perspective is given and includes a discussion of sources and symptoms of stress, marital status and gender differences, social support, lifestyle, and coping. The final topic presented is research related to stress in professional work environment.

A. Definition and Measurement of Stress

Research on stress in the last three decades has resulted in a proliferation of definitions (Elliot & Eisdorfer, 1982). According to Cameron and Meichenbaum (1982) there does not appear to be notable progress in establishing a concise definition of stress. Beach (1950) noted: "if the word is going to refer to everything from homeostatic mechanism...to cerebral activity...we are apt to arrive at a very inclusive but equally indefinite concept" (cited in Cameron & Meichenbaum 1982, p.695).

According to Everly and Rosenfeld (1981) the term originated in the field of physics, where it referred to any strain, pressure, or force applied to a system. However, in the allied health fields, the term was first introduced by Hans Selye in 1926, who most recently defined stress as: "the nonspecific response of the body to any demand" (1982, p.v.).

Selye's definition has been challenged. Van Dijkhuizen (1980) reported finding at least 40 definitions of the concept in the literature. A review of the literature for the current study also yielded several diverse definitions.

Budzynski and Peffer (1980) define stress as a state of discomforting tension, conflict, or psychological pressure. Hicks, Okonek and Davis (1980) define stress as: "that stimulus which can produce anxiety, either externally (social pressures, publication deadlines) or internally (physical illness such as hyperthyroidism)" (p.429). Anderson (1978) suggests that stress is any stimulus which demands adaptation on the part of the organism involved.

Holroyd and Lazarus (1982) define stress as: "relationally by reference to both the person and the environment. Psychological stress requires a judgement that environment and/or internal demands tax or exceed the individual's resources for managing them" (p.22). Lazarus' (1982) definition is similar to that of Cox (1978) and both are essentially related to an interactional viewpoint. According to Cox (1978): "stress is an individual's psychological and physiological response to a situation that approaches or exceeds the person's perceived ability to cope with that situation" (cited in Hiebert, 1985, p.12) An incorporation of the previously mentioned definitions denotes stress as a result of an individual's interaction with the demands of life and the individual's ability or inability to cope with the experience.

The definition of stress utilized in the present study is one advanced by Miller, Smith and Mehler (1986) in their biobehavioral model of stress, where stress is defined as:

> The dynamic state of tension that is created between an organism or structure and its environment (internal or external) when said organism, or structure, responds to the demands and pressures of said environment (internal and/or external) in order to maintain its integrity (p.1).

These authors have attempted to integrate aspects of other models to present a more unified concept of stress. An elaboration of the biobehavioral model follows in the life events discussion in this chapter.

There are many instruments used to measure stress, be it physiological, psychological or stress-specific symptoms. Initially, stress measurement focused upon physiological indicators to measure stress responses in human beings. A summary of physiological measures as compiled by Endler and Edwards (1982) includes: skin resistance and potential, heart rate, blood pressure, blood volume, respiratory rate, volume of saliva, gastric motility, pupillary diameter, muscular tension, brain waves, and adrenal hormones.

A divergence from the physiological measurement of stress occurred with a choice to measure stress from a psychological perspective. Psychological measurement of stress incorporated the use of tests and instruments to measure psychological constructs related to stress, such as anxiety or depression, or to measure the "psychological effects" of exposure to stress. Presently, there is a myriad of such tests and instruments utilized to measure psychological states and traits.

The Minnesota Multiphasic Personality Inventory (MMPI) is a widely used instrument for assessing the effects of long-term stress on the personality structure of an individual (Hathaway & McKinley, 1967). Other psychological instruments used for measuring stress include: the Sixteen Personality Factor (16P-F) (Dattel, 1972), the Taylor Manifest Anxiety Scale (TAS) (Taylor, 1953), the State Trait Anxiety Inventory (Spielberger, Gorsuch & Lushene, 1970), the Profile of Mood States (POMS) (McNair, Lorr & Droppleman, 1971), and the Subjective Stress Scale (Berkun, 1962) (cited in Everly & Rosenfeld, 1981).

B. Life Events as a Measure of Stress

Over the last two decades, the measurement of stress has focused primarily upon the use of life events scales to quantify stress. Inherent in a life events approach to measuring stress, is the underlying assumption that daily routines, and major and minor life events, whether positive or negative, appear to be significant in contributing to stress in individuals.

Breznitz (1982) reports that Adolph Meyer was the first to speculate about life events. Meyer's (1951) theoretical model of stress utilized the concept of life events as a focal point. Meyer established the relationship of life events to the medical status of individuals through the development of his 'life chart' (cited in Breznitz & Goldberger, 1982).

The Social Readjustment Rating Scale

Holmes and Rahe (1967) initiated the practice of measuring life events as indicators of stress. Holmes, Rahe and associates developed the first quantitative measure of life events. The authors presupposed that different life events required different amounts of adjustment. The Social Readjustment Rating Scale (SRRS) (Holmes & Rahe, 1967) contained 43 events, based upon an individual's propensity to adapt to certain life events. The life events measured, ranged from minor violations of the law to death of a spouse. Each event was assigned a weight. The weights were derived from the rankings of life events within samples of the general population and reflect the amount of adjustment required for the event.

Rahe (1974) revised the SRRS to also include 13 'productive new life change questions' and added instructions for subjective life scaling. The SRRS is currently one of the most frequently used instruments in stress research. This self-report instrument can be administered and completed in approximately five to ten minutes.

The SRRS has been used extensively, with reportedly over 1000 publications based on this instrument appearing in the empirical literature in the 1970's (Perkins, 1982). Reviews of the SRRS have been controversial. Researchers queried the implications of the effects of confounding items with measures of psychological distress (Dohrenwend, B.S., Dohrenwend, B.P., Dodson & Shrout, 1984). Tausig (1982) suggested that life events measures also confounded with physiological or psychological outcomes. Brown (1974) criticized the vagueness of item descriptions and subsequent ramifications of interpreting results.

The literature pertaining to life events research is extensive in scope and contains some critical viewpoints. Funch and Marshall (1984) disputed the consistency of a respondent's ability to accurately recall events which had occurred in the past. Similarly, Paykel (1983) highlighted retrospective reporting as one of the main problems in life events data collection. Events which are deemed to be effects of illness, as well as the quantification of these unequal events, are additional methodological problems (Leventhal & Tomarken, 1987).

Monroe (1982) and Dohrenwend (1973) identified the potential confounding of event incidence with preexisting disorder. Further criticism of life events measures have referred to the weak correlations between cumulated life events and health outcomes (Kanner, Coyne, Schaefer & Lazarus, 1981; Lin, Simeone, Ensel & Kuo, 1979; Nezu & Ronan, 1985; Thoits, 1982).

Daily Hassles and Daily Uplifts

Lazarus' (1981) contribution to life events research incorporated the need to examine more fully the intricacies of an individual's daily routines. Lazarus defined these day to day events as 'daily hassles' and 'daily uplifts'. According to Lazarus: "the immense adaptational significance of the relatively minor stresses and pleasures that characterize everyday life" (Kanner, Coyne, Schaefer & Lazarus, 1981, p.2) are particularly pertinent to the investigation of life events research.

Hassles are the irritating, frustrating, distressing demands that, to some degree, characterize everyday interactions with one's environment. The Hassles Scale is comprised of a list of 117 items that were generated by research staff using the following areas as guidelines: work, health, family, friends, environment, practical considerations, and chance occurrences. Examples include misplacing and losing things, declining physical abilities, not enough time for family, concerns about owing money, and pollution. Clients rate each hassle based on its occurrence during the previous month, for both severity and persistance, on 3-point subscales (Kanner, et al., 1981).

The Uplifts Scale consists of 135 items that were derived from the same content areas as the Hassles Scale. Examples include: relaxing, spending time with family, using skills well at work, praying, and nature. Uplifts are rated and scored in the same manner as hassles.

In summary, the Hassles Scale is subject to similar methodological criticisms as the SRRS and other life events approaches. For example, the issue of items being confounded with psychological disorders contributes to the difficulty of discerning causal factors. Dohrenwend, B.S., Dohrenwend, B.P, Dodson & Shrout (1984) found that in more than three quarters of the items on the Hassles Scale, there was a tendency for items to be related to manifestations of psychological disorders.

The Biobehavioral Model of Stress

Life events measurements are an established medium used in the investigation of potential relationships between illness and day to day living. As previously mentioned, the measurement and use of life events as indicators of stress has some methodological problems. These methodological difficulties are partially derived from lack of adequate definitions from which meaningful models and methods of measurements can be constructed (Miller, Smith & Mehler, 1986, p. 1). The instrument of choice in the current study was constructed with these methodological difficulties in mind.

The biobehavioral model of stress emerged from the interest of Miller et al. (1986) in integrating aspects from other models to create 'a more unified concept' of stress. Coupled with this interest was the intent to develop a form of measurement which considered the implications of general health and well-being. The model is based upon assumptions in four areas; general assumptions, assumptions regarding demands and pressures, assumptions regarding symptoms, and assumptions regarding vulnerability to stress.

According to the general assumptions of the model, stress is additive, cumulative and a relatively enduring state phenomenon. The assumptions pertaining to demands and pressures are perceived and defined by the individual. In order to respond to these demands and pressures, the individual must mobilize physiological resources. Moreover, extreme, frequent, or prolonged mobilization will lead to strain ie. tension (Miller, et al., 1986, p. 1).

Assumptions regarding symptoms suggest that symptoms of strain are represented in discrete neurophysiological systems. Miller states that strain leads to system failures and the production of symptoms, and that symptoms of strain become sources of demand and pressures, in and of themselves (Miller, et al., 1986, p. 1). Assumptions concerning vulnerability to stress state that vulnerability varies within an individual, that there are individual differences, and that vulnerability is determined by complex interactions among health behaviors, such as; life style considerations, financial, spiritual and social resources, and physiological predisposition (Miller, et al., 1986, p. 2).

The Stress Audit Questionnaire

The Stress Audit Questionnaire (SAQ) (Miller & Smith, 1987) is the instrument used in the current study. The SAQ is a 238 item, Likert scale instrument that provides a profile reflecting three facets of stress: situations, symptoms and vulnerability factors.

The SAQ measures stress in six situational areas: family, individual roles, social being, environment, financial, and work/school. Examples of the varied items in these scales include marital difficulties, meeting obligations to oneself, being excluded from a group, noisy or unfriendly neighbors, loss of income, and pressure to do well at work/ school (Miller, et al., 1986, p. 4).

The questionnaire also provides an objective measure of stress symptoms expressed through the muscular, emotional, cognitive, endocrine and immune systems, as well as the sympathetic and parasympathetic nervous systems. Examples of symptom items include tension headache, diarrhea, hypertension, anxiety or panic, mental confusion, diabetes, and frequent bouts of flu (Miller, et al., 1986, p. 4).

The third facet of stress measured in the SAQ is vulnerability to stress. These items address lifestyle, health behaviors and coping resources, and include items such as leisure activities, sleep and dietary considerations, and financial, social, familial, and spiritual resources (Miller, et al., 1986, p. 4).

Support for the Use of the Stress Audit Questionnaire

The current SAQ format was published in 1987 and therefore there has yet to emerge any empirical literature depicting strengths and weaknesses of the instrument. However, one strength of the SAQ lies in Miller's consideration of methodological problems associated with past measures of life events. The design of the SAQ facilitates an in-depth examination of stress by providing a framework to analyze specific elements of psychological and physiological stress, in addition to lifestyle and health behavior.

The comprehensiveness of the SAQ eliminates the need to use additional instruments to measure psychological, physiological, environmental and daily living aspects of stress. The uniqueness of the SAQ is that in conjunction to providing information about how the body responds physically and psychologically to stresses and strains, it also elicits information about how stress attacks the body. Furthermore, additional information is provided on the systems most reactive to stress. Secondly, unlike any other instrument, the SAQ measures anticipatory stress, a factor that may be appropriate to and possibly present in the population under review. According to Miller, Ross and Cohen (1982) the "uniqueness of human beings is that we are also stressed by what might happen to us" and "If we are stressed in the present and, at the same time, worry about the potentially infinite number of things that could happen in the future, we severely overtax our limited psychological and physiological resources" (p.38).

The SAQ measures lifestyle information through the vulnerability scale and provides relevant items for the population under review in the work/school scale. Two elements that contribute to the practicality of the SAQ are the introduction of event frequency and subjective weights. (experience of event and appraisal of event). Finally, the assumption, explicit in the biobehavioral model, that stress is cumulative supports this author's understanding regarding the complexity of the concept of stress.

C. The Relationship of Lifestyle and Health to Stress Through Nutrition and Exercise

At a very basic level, health is influenced by nutrition (one's eating habits) and by exercise (physical fitness). In the biobehavioral framework, eating is a potential source of stress. According to Miller et al. (1982), strain can result from irregular mealtimes when the body is not informed of when it will next get the food it needs. Miller et al. (1982) also suggest that the present concept of exercise incorporates the attitude of the machine age, and emphasizes the maintenance of health and fitness in current styles of living in order to replace the exercise previously gained through manual labour.

Nutrition

According to Williams (1982), nutrition is related to health in two basic ways: physically and emotionally. The physical relationship is fundamental in form, since survival depends on air, water and food. However, upon examination of the emotional aspects of health, individuals do not necessarily eat solely to sustain the physical body. Williams (1982) posits that: "food has many meanings and helps to meet a number of personal, social and cultural needs" (p.9). Food, and subsequently nutrition, are related to both physical and emotional health. Yet, knowing and doing seem to be two different things, since a proper diet does not guarantee resultant good health. Herbert Ratner (1986) reports:

> America is the most over-medicated, most over-operated, and most over-inoculated country in the world. It is also the most anxiety-ridden country with regard to health. We are the wealthiest country in the world, yet one of the unhealthiest countries in the world...We suffer from a plethora of the diseases of civilization (cited in Hales & Williams, 1986, p.3).

Evidently, availability and accessibility of health resources do not guarantee health, in the same way abundance of food does not guarantee a well balanced diet.

Studies indicate that stress can be both a cause and a consequence of malnutrition. "When stress is superimposed on a nutritional disorder, the effect is to make a bad condition worse" (Selye, 1970, p.5). Additional research supports the connection between stress, nutrition and illness (Arnold & Jensen, 1983; Bjorksten, Sutherland, Miller & Stewart, 1983; Goodman, Sewell, & Jampol, 1984; Lazarus, 1983).

Nutrition may then be defined in terms of its function of meeting an individual's human needs. Williams (1982) identifies these needs by using four frames of reference: age group needs, stress factors, health status and basic human needs. According to Williams (1982): "basic nutrition and health needs are related to each of these general human needs for personal integrity" (p.7).

Hales and Williams (1986) suggest that, regardless of actual needs, individuals tend not to honor body and mind in so far as the nutritional requirements necessary for efficient functioning are concerned. This is particularly evident in the examination of the hectic pace of the world today. Hales and Williams (1986) describe this pattern:

> ...during times when we most need nutritious foods - those of stress and crisis - we often pay little attention to what we're eating. We skip meals, and as our blood sugar plummets, we feel irritable. We down cup after cup of coffee and wonder why our nerves are on edge. We snack on sweets that give us a surge of energy and then leave us hungrier than before. At the end of the day, we pour ourselves a few stiff drinks to unwind. Behaviorally and nutritionally, we become our own worst enemies (p.68).

Moreover, Eckholm & Record (1980) report that the same dietary factors, that have set the modern Western diet apart from all others in human history, have been implicated in the origins of many different diseases. The intake of large amounts of animal protein and fat, refined flour and sugar, and commercially manufactured foods are elements which negatively influence the quality of nutrition.

Clark (1981), Hales and Williams (1986) and Everly and Rosenfeld (1981) outline the following simple nutritional recommendations: eat a variety of foods (from the four food groups), eat breakfast and space remaining meals throughout the day, avoid fat and cholesterol, eat adequate starch and fiber, avoid too much sugar or sodium, maintain ideal body weight, get seven to eight hours of sleep, do not smoke, avoid snacks, and drink only in moderation. These recommendations are derived from medical theory and well known principles of good clean living.

Exercise

According to Clark (1981), many illnesses can be linked to inactivity. Illnesses related to inactivity as described by Clark include: hypertension, chronic fatigue, physiological inefficiency, premature aging, poor musculature, inadequate flexibility, lower-back pain, tension, obesity, arteriosclerosis, and coronary heart disease.

The concept of exercise, or 'working out', is a phenomenon that may be traced throughout the centuries. Hales and Williams (1986) assert that 2000 years ago, Plato argued that a person's soul or spiritual essence benefits from regular exercise. Anderson (1978) expounds upon the significance of exercising:

> Physical exercise provides three advantages for man: 1) the maintenance of good muscle tone to provide a reserve for activities we do not commonly engage in, 2) the maintenance of a healthy cardiovascular system

> through challenge to near capacity on a regular basis, and 3) the sense of well-being which is due to the escape of excessive tensions through this means (p.143).

According to Hales and Williams (1986), exercise conditions your body to handle stress by creating the same physiological symptoms experienced during stress. Aerobic exercise, paradoxically, helps to manage stress. Intense exercise increases the body's reserves of stress-related hormones, so you need to produce less when stress hits (Hales & Williams, 1986).

Brody (1980) reports "that exercise can enhance skills, improve flexibility, build muscle strength and tone, relieve tension, help in weight loss and maintenance, and improve the body's general physiological condition, especially the ease with which the heart can supply oxygen to body tissues" (p.139). In essence, exercise acts as a coping mechanism both physically and psychologically.

Miller et al. (1982) posit that exercise has curative effects due to the depletion of sodium deposits from the skin through perspiration, and toning of the heart and lungs which increases the efficiency of blood flow to the muscles and brain. Furthermore, exercise assists individuals in combating depression by stimulating production of chemicals in the body.

Physically, exercise improves the body's overall ability to function in a healthy manner. Psychologically, the aesthetic evidence of a healthy body, which can be gained through exercise, improves mood and promotes _joie de vivre_. Exercise, by conditioning the body, aids in promoting longevity in individuals. Therefore, as Anderson (1978) asserts, individuals need to challenge themselves physically, mentally and emotionally, "for those parts of ourselves which we do not use we eventually lose" (p.143).

In summary, the principles of good nutrition and regular exercise have been identified as beneficial to individual well-being. Specifically, the advantages of maintaining a well balanced diet and a good physical fitness level were discussed in relation to the management and alleviation of stress.

D. The Role of Social Support and Coping as Moderators in Stress Reduction

The presence of life events and transitions elicits many and varied reactions from an individual. These reactions are influenced by the individual's unique personality characteristics, personal resources and past experiences. Therefore, as previously mentioned, what is stressful to one individual may not be stressful to another and subsequent physical and/or psychological symptoms are not common responses for all who experience the event. Decisive factors affecting an individual's response to events include their social support network and their individualized coping strategies. Research in the area of stressful life events and illness has illustrated a positive relationship between the effects of social support and coping strategies on individual well-being. Consequently, although they are two distinct variables, social support and coping strategies have similar functions as mediating factors in stress reduction. Thus, social support and coping strategies were explored in reference to their relationship to the stress process.

Social Support

The investigation into the role of social support in alleviating the negative effects of stress is hampered by the disagreement among researchers as to what constitutes social support and how it effects well-being. Thoits (1982) suggested that there are serious, unresolved problems with the empirical literature on social support, due to the fact that social support has been inadequately conceptualized and operationalized.

Turner (1983) states that: "most definitions have focused on the helping elements and processes of the social-relational systems in which the individual is located" (p.108). Kaplan, Cassel and Gore (1977) have suggested that all definitions or assumptions of social support, implicitly or explicitly, fall into two frameworks. Support may be seen as the 'metness' or gratification of one's basic social needs as supplied by environmental sources of support or support may be viewed as the presence or absence of psychosocial support resources from significant others.

Schaefer, Coyne, and Lazarus (1981) have differentiated three types of social support: emotional, tangible and informational. Emotional support is distinguished as comprising intimacy and attachment, reassurance, and opportunity to confide in and rely upon another person. According to the authors, emotional support provides an individual with the feeling of being loved, being cared for and belonging to a group. Tangible support consists of direct aid through gifts of money or goods and provision of services such as babysitting. Informational support, on the other hand, includes the provision of information and advice which may help an individual solve a problem or may provide feedback about how an individual is doing.

Cobb (1976) conceptualized social support to include one's perception of their world. Cobb viewed social support as belonging to one or more of the following three classes:

> 1) information leading the subject to believe that they are cared for and loved,
>
> 2) information leading the subject to believe that they are esteemed and valued, and
>
> 3) information leading the subject to believe that they belong to a network of communication and mutual obligation (p. 300).

Instrumental in Cobb's thesis is the consideration of the individual's personal experience and their subsequent appraisal of that experience, as the determining factors in whether social support will be regarded as support. In this manner: "perceptual reality is psychological reality" (cited in Turner, 1983, p. 110).

Elliot and Eisdorfer (1982) highlighted the following aspects of social support:

1) giving emotional support (showing concern and caring, indicating that the person is valued, providing a sympathetic ear),
2) conveying a sense of belonging (participating in a reciprocal network of shared obligations),
3) providing tangible help when needed, and
4) suggesting information about how to cope (p.167).

Seashore (1980) identified social support as a system which is "a resource pool drawn on selectively to support me in moving in a direction of my choice and leaves me stronger" (p.156). The resource pool according to Seashore comprised people, things, environments and beliefs.

In the investigation into the role of social support in the etiology of illness, there emerge two distinct hypotheses. Lin, Simeone, Ensel and Kuo (1979) postulated that social support may act as a preceding factor in reducing the likelihood of the onset of illness. Secondly, Lin et al. postulated that social support acts as a "buffer" against the exacerbation of responses to negative life events. It is this second hypothesis which is most commonly referred to in the empirical literature on social support.

Simpson (1980) posited that social support acts as a 'buffer' against the conversion of potentially stressful life events, such as unemployment, into acute stress. According to Simpson, family, neighbors and friendship groups have positive effects on stress reduction, while strangers on telephone suicide hotlines do not appear to have any major effect on stress reduction or suicide rates.

Haan (1982) cited social support as one environmental resource for alleviating stress. According to Haan: "social support must go beyond tender care, to include help in sorting out the implications of one's experience, discarding one's exaggerations and distortions, and consensually validating the reality of one's reactions and the situation" (p.259). Lieberman (1982) examined the role of social support in mitigating the negative effects of social stress or in facilitating positive change in individuals. The 'mitigating' or 'buffering' effects of social support on life events is further supported by Broadhead, Kaplan, James, Wagner, Schoenbach, Grimson, Heyden, Tibblin and Gehlbach (1983), Sarason (1988) and Gottlieb and Green (1984).

Hales and Williams (1986) suggested that people who have a confidant of either sex, feel less anxious and depressed than those who don't have a confidant, and that "those who have a friend of the opposite sex are healthiest of all" (p.251). Positive effects of social support on the stress of labour and delivery in expectant mothers were reported by Sosa, Kennell, Klaus, Robertson and Urrutia (1980), on stressful life events associated with death, illness and personal injury by Roskin (1982), and on the consequences of job loss by Gore (1978) (cited in Gottlieb, 1983).

Wills and Langner (1980) reported that among persons exposed to high stress, those with social supports such as friends, marriage partners or community relationships had lower levels of symptomatology when compared with those lacking social support. Wills and Langner further suggested that low social support is in itself a source of stress, as even during periods of low stress, those with low social support show higher stress levels than those with high support.

The thesis that social support buffers the effects of life events has been questioned by some researchers. Payne and Jones (1987) reported that: "support for the buffering hypothesis is weak, and probably not greater than would be expected by chance" (p.195). Larocco, House and French (1980) and Pearlin, Menaghan, Lieberman and Mullan (1981) have argued that although several studies demonstrated a positive relationship between social support and health, the relationships were insignificant, since the studies exhibited methodological limitations and there was a lack of understanding of the conditions determining the effectiveness of the support. Bruhn and Philips (1984) have suggested that measures of social support may be confounded with other variables, thus making it difficult to determine whether social support creates good health or good health creates opportunities to receive social support.

Coping

According to Meichenbaum (1983), coping is the: "response made by an individual when he encounters a situation with a potentially harmful effect" (p.69). Meichenbaum (1983) identified three types of coping. The first involves an individual's attempt to change the situation and solve the problem. The second occurs after the stressful situation has occurred and involves trying to alter the meaning of the situation. The third type of coping entails trying to control stress after acknowledging the emergence of stress (p.74). In addition humour, flexibility, social support, personal control, and adequate information are also means of coping with stress. Meichenbaum (1983) cited denial as belonging to the second type of coping and postulated that denial, as a strategy, allows the individual to accept certain parts of the stressor, while at the same time dismissing other parts.

Lazarus and Folkman (1984) view coping as a process. They define coping "as constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (p.141). According to Lazarus and Folkman (1984), resources which include health and energy, existential beliefs (God or general beliefs about control), motivating commitments, problem solving skills, social skills, social support, and material resources are essential components utilized in differentiating individual coping styles.

Pearlin and Schooler (1978) proposed that there is a protective function of coping behavior, which can be exercised in three ways. Firstly, coping can eliminate or modify conditions which may create problems. Secondly, coping can neutralize the problematic characteristics of an experience by perceptually controlling the meaning of the experience. Thirdly, coping can keep the emotional consequences of problems within manageable limits. Fleishman (1984) on the other hand, has suggested that coping can be both overt and covert behaviors that reduce or eliminate stressful conditions or psychological stress. Fleishman reported that the impact of coping on an individual depends upon both the features of the social setting and the characteristics of the individual.

Patterson and McCubbin (1984) viewed stress as comprising both an individual's psychological resources and behavioral repertoire. They suggested that the least amount of distress is experienced by individuals who use a variety of coping behaviors in their life, when faced with stressful situations.

Holahan and Moos (1985) distinguished between active or approach coping and avoidance coping strategies. Active coping included: "behavioral efforts to deal with the challenge and cognitive attempts to manage one's appraisal of the threat" (p. 740). Avoidance strategies were exactly as entitled and involved avoiding the problem.

Kobasa (1979) compared two types of executives, those who exhibited high levels of symptoms following exposure to stressful life events and those who exhibited low levels of symptoms, and found that executives who exhibited low levels of symptoms had stronger coping mechanisms. The coping mechanisms measured included: "an attitude of vigorousness toward the environment, a sense of meaningfulness, and an internal locus of control" (cited in Cooley & Keesey, 1981, p.711).

Holahan and Moos (1985) investigated factors which buffer the negative effects of life events. Their sample included two groups: high stress, high distress individuals and high stress, low distress individuals. Holahan and Moos reported that: "those who adapted to life stress with little physical or psychological strain were more easy-going and less inclined to use avoidance coping than individuals who became ill under stress" (p.739). Differences between the sexes in their use of coping strategies were also reported, with men exhibiting more self-confidence and women utilizing more family support.

Patterson and McCubbin (1984) examined the coping response of military wives separated for long periods from their spouses. According to Patterson and McCubbin's findings, the wives who experienced the least amount of distress coped by: "accepting the lifestyle and being optimistic and by developing self-reliance and esteem" (p.95).

Other researchers have distinguished the effectiveness of coping strategies in regard to the type of situation confronting the individual. Pearlin and Schooler (1978) reported that coping strategies were more effective when confronting problems in the interpersonal realm (family) and less effective when confronting more impersonal problems such as those related to occupation. These findings were further supported by Pearlin, Menaghan, Lieberman and Mullan (1981). Similarly, Fleishman (1984) posited that the strongest relationship between coping behaviors and reduced impact of life events occurs with emotion-focused coping behaviors. According to Fleishman, emotion-focused coping behaviors involve reinterpreting the event or denying and minimizing the threat.

In the field of stress research and the interaction of stress, coping ability and disease, there are some contradictory opinions and claims of non-significant findings, which therefore, cannot support the stress buffering premise (Stuart & Brown, 1981). Thus, in summary, there remains a need to extend the identification of coping behaviors, whether social support or other coping strategies, and to clarify the role they play in the intricacies of stress and illness. Further empirical support for the effectiveness of the various types of coping strategies may be warranted, as well as a critical analysis of the methodological issues pertaining to the evaluation of coping strategies.

E. Stress And Graduate Students from a Life Events Perspective

The purpose of this study is to examine the relationship between life events, stress and illness within a graduate student population. Life transitions are an integral part of graduate student lifestyle. Stress, as defined by Miller et al., emphasizes that an individual's perceptions and personal processing of life transitions and events may affect their preponderance to experience stress. The tendency for certain graduate students to view graduate school as a stressful life transition may contribute to the presence of stress within this population. Therefore, this study focuses upon the investigation of elements deemed to be pertinent to stress and illness among graduate students.

A literature review of stress illustrates that coping mechanisms and social support are mediating factors in the stress process. Therefore, coping mechanisms and social support were the two variables examined in-depth in this study. Graduate student life transitions were explored in order to examine the presence and possible relationship between stress and illness. Marital status, gender differences and sources and symptoms of stress were also discussed.

Recognizing the potential for life changes which can be necessary to pursue graduate studies, the incidence of reported stress related illness was investigated. A review of the literature revealed the following stress related illnesses in graduate students: gastrointestinal disease, hypertension, headaches, episodes of depression, weight changes, insomnia, asthma or wheezing, amenorrhea, sexual difficulties, increased incidence of infectious disease, allergic response, as well as cardiovascular and psychiatric symptoms. Alcohol and drug abuse, as well as suicide, were also identified among a graduate student population (Arnold, et al., 1983; Bjorksten, et al., 1983; Goplerud, 1980; Goodman, et al., 1984; Jemmott, et al., 1983 and Mitchell, et al., 1983).

Sources and Symptoms of Stress

Graduate students may tend to relate all existing problems and stresses to their immediate academic environment. According to Archer and Peters (1986), students have separate academic and personal stressors which vary according to sex, age, program, marital status and other factors. Program-specific stressors were reported by medical, law, psychology and chemistry graduate students in a study by Heins, Fahey and Leiden (1984). Areas of prime concern for each program were as follows: infrequent examinations and peer competition for law students; too little time to spend at home due to patient responsibilities for medical students; worrying about money for psychology students; and too frequent exams for chemistry students. This does not identify all potential sources of stress experienced by students, as additional stressors were also reported.

Medical, business, divinity, religion and two psychology departments were the focus of a study by Smith, Norris and Jones (1985) on nonacademic, daily stressors and negative mood states. These findings revealed that one of the psychology departments and the divinity department reported significantly higher levels of negative mood than the other departments. The results also revealed that medical students reported the lowest level of negative mood. The authors concluded that there were few departmental differences in daily stressors, with moderate as opposed to extreme levels of stress present in all departments.

Frank, Van Valin and Weinstein (1982) used the Life

Experiences Survey (LES) and the Social Readjustment Rating Scale (SRRS) to compare the stress levels of six groups: hospitalized inpatients, hospitalized spinal cord-injured inpatients and outpatients, local residents, graduate and undergraduate students. These results indicated that there was a significant difference in rating scores between groups on the SRRS, with graduate students scoring higher than either medical inpatients or outpatients with spinal cord injuries.

Gill (1985) identified the following symptoms in a group of college students: loss of concentration, lack of attention, changes in sleeping patterns, changes in eating habits, and drug and/or alcohol abuse as indicators of the presence of stress. Katz and Hartnett (1976) mentioned inadequate funds, insufficient time and energy for intimates and friends, feelings of helplessness in the face of perceived arbitrary actions of professors and departments, loneliness, and lack of time to meet interpersonal goals as sources and symptoms of stress. Katz and Hartnett (1976) also cited poverty and discontent about the status of being a student as sources of stress.

Alcohol use and lack of sleep can interfere with academic performance and subsequently, both may contribute to an individual's experiencing of stress. Waring, Petraglia and Busby (1984) examined the use of alcohol in graduate social work students. Results of this study indicated that

85% of the students used alcohol 3 or 4 times a week. Asken and Raham (1983) examined sleep deprivation in a study of medical students. Several side effects of sleep deprivation were described: decreased behavioral and psychomotor performances, increased depression, hostility, anxiety, tension, confusion, and fatigue. The side effects appeared to alter an individual's consistency in their ability to function effectively and deal with stress.

Whitman, Spendlove and Clark (1985) cite poor employment opportunities (oversupply of PhD's), sense of powerlessness (faculty have power over their lives), difficulty in achieving social intimacy, and lack of time to develop interpersonal relationships as sources of stress for graduate students. Interpersonal relationships may provide pleasure in one's life, and may also become a source of stress when there is difficulty meeting obligations to oneself and one's spouse or family.

In summary, individual differences in how one perceives and reacts to life transitions and events are apparent when reviewing the effects of stressors on physical and psychological well-being in a graduate student population. Moreover, there appears to be separate and varied academic and personal stressors which graduate students may experience. Some for example, may react to their academic work load and not enough time to get things done, while others may see family demands or the lack of a significant personal relationship as stressful.

Marital Status and Gender Differences

A relationship between differences in the level of stress experienced and marital status has surfaced in the literature on stress. Coombs and Fawzy (1982) and Musser and Lloyd (1985) reported that unmarried students experienced more stress than their married counterparts. According to Coombs and Fawzy, there are two competing explanations for this discrepancy: 1) the protection/support hypothesis which states that emotional support from a spouse offsets daily tensions and 2) the selection hypothesis that more emotionally mature individuals marry (p.1490). On the other hand, McLaughlin (1985) argues that for married students "stressors are multifaceted because the problems facing the student, affect the family as well" (p.488). This concept is supported by Mechanic (1962), who observed that: "the family is subjected to considerable stress during the examination period and, to some extent, during graduate school..." (p.150). The married student may experience more stress under the conditions of graduate study due to the impact of their interaction with partners and children.

In part, problems facing the married graduate student may be derived from the demanding and 'all absorbing' nature of graduate school as opposed to the average eight hour a day job (Halleck, 1976; Namir, 1982). A comparison of graduate student couples and couples who are non-graduate students, reveals that graduate student couples seem to exhibit the consequences of this all absorbing process. Namir (1982) compared the stresses of three groups of couples: graduate student couples where the husband was the student, couples who had recently given birth to their first child, and couples who did not belong to either of the first two groups. The results of the study indicated that graduate student couples experienced significantly more stress than the other two groups. Issues which contributed most significantly to stress for all couples included: events concerning finances, events concerning moving, schooling, and major changes in living conditions. Arguments with one's partner and financial difficulties were cited as most problematic for graduate student couples. Namir (1982) postulated further that changes in the lives of graduate student couples primarily involve losses, rather than the integration of additions to current lifestyle.

In an ethnographic study of married doctoral students and their non-enrolled working spouses, Giles (1983) investigated the effects of the graduate experience on 'intra and inter' family relationships. Giles (1983) described four broad themes, which emerged from the ethnographic analysis. The graduate experience involved changes related to financial, academic and emotional support; deadlines and time for communication; sexual conflict and role conflict; and physical and emotional separation and status changes. The couples expressed concerns about the lack of married peers, living arrangements, and the attainment of status through enrollment and grades. The combination of fear of termination of the relationship upon graduation and concern for the needs of the non-student were factors cited as significant by couples in this study.

Hedstrom and Hedstrom (1983) and Houseknecht, Vaughan and Macke (1984) explored the high rate of divorce and separation for graduate and professional students. Time, or more correctly lack of time, seems to be the greatest reason for breakdown of the marriage unit. Specifically, marital problems appear to evolve from a reduction in the time available for the following components; communicating, intimacy, family activities and leisure activities. In addition, Hedstrom and Hedstrom (1983) hypothesize that marital stress occurs when "...one partner grows intellectually" (p.3) relative to the other person.

In the United States, divorce rates among married, female graduate students are reportedly the second highest of any group (Houseknecht, et al., 1984). Women with five or more years of college education were surpassed by only the low income female group in their tendency to experience marital disruption. Similarly, "...women who have children before or during graduate school are more likely to divorce or separate than those who have children after graduate school" (p.273). In other words, graduate education may provide a more stressful experience for married women, as opposed to married men or other groups.

Several authors (Carter & Norris, 1984; Smith, et al., 1985; Stansbury, 1986; and Van Rooijen, 1986) indicated that female graduate students report higher levels of stress than males, and that females are more likely to drop out of graduate school due to personal and emotional problems. Conversely, men are more likely to drop out of graduate school as a result of academic difficulties (Carter & Norris, 1984).

According to Solmon (1976), women take longer to complete graduate degrees and are less likely to complete graduate school. An explanation is warranted to elaborate on the attrition of women in graduate school. A greater number of women are enrolled in the social sciences and humanities than in the physical sciences. On the contrary, there is a higher attrition rate of PhD's in the social sciences and humanities departments (Solmon, 1976). Hence, the attrition rate of women in doctoral programs may be related to their sex or department, or perhaps to both.

In addition to higher attrition, women are reportedly more likely to suffer from stressors related to role conflict. Adler (1976) postulated that women experience conflict between their personal and professional lives. Stansbury (1986) found that in addition to academic work, female graduate students assumed more responsibility for housework than male peers.

In summary, the research highlighted different experiences for married and single graduate students, as well as, for male and female graduate students. Evidently, single graduate students experience more stress than married graduate students. However, when compared to a non-student population, married graduate students apparently have higher levels of stress and report higher divorce and separation rates as opposed to non-student couples. Higher levels of stress were also reported for female graduate students when compared to male graduate students.

Social Support

Studies, which examine the concept of social support, report difficulties with relationships as a concern for both male and female students (Clark & Rieker, 1986; Heins et al., 1984; and Mallinckrodt, Leong, & Fretz, 1985). Similarly, a number of researchers have shown an increased need for social support among graduate students (Blumberg & Flaherty, 1985; Cooley & Keesey, 1981; Goplerud, 1980; Heins et al., 1984; and Lin, Ensel, Simeone & Kuo, 1979). Likewise, the findings of Folse, DaRosa & Folse (1985) suggest a need for educating students about the benefits of well spent leisure time as a stress management mechanism and the importance of leisure time in coping with daily pressures and anxieties.

Social support has been identified as a buffer or moderator of the effects of stress (Roos & Cohen, 1987; Landau, Hall, Wartman & Macko, 1986). In a study of medical residents, Landau et al. (1986) found that frequent visits with family members, seeing enough of friends, and athletic activities correlated with reduced stress. Moreover, communication from significant others and perceived interpersonal support correlated with decreased alcohol consumption during the first 12 weeks of medical school for first year medical students (Gardner, Jr., Wilsnack & Slotnick, 1983).

A pertinent component of support preferred by graduate students does not necessarily appear to be attainable. Ideally, many students would choose to be in a romantic relationship and cite the lack of a relationship as a source of stress. Interest in having a romantic relationship, or intimate friendships with members of the opposite sex, as well as sexual intercourse were mentioned by students in Katz and Hartnett's (1976) study.

The penchant for developing relationships and the feelings of isolation and loneliness expressed by some graduate students are factors that have contributed to the development of support groups. Gustitus, Golden and Hazler (1986) observed that "...graduate students could benefit from support groups promoting student-student and faculty-student personal contact" (p.461). Fondacaro, Heller and Reilly

(1984) described a support group designed to reduce feelings of loneliness and increase social interaction among residents in a graduate student high rise dormitory. Findings revealed that: "...those under the greatest academic pressures sometimes were those with the weakest social skills" (p.521). The need for support may indeed be related to the number of life transitions a graduate student undergoes. Fondacaro et al. (1984) cited examples of these transitions: increased responsibility and independence, new academic demands, and exposure to new groups of people who may seem superior or threatening. According to Fondacaro et al. (1984), the effects of these transitions may be intensified as graduate students also tend to lose the support networks formed during undergraduate study.

Support groups for graduate students can offer assistance in various domains. Gustitus et al. (1986) suggest that support groups "...help relieve academic pressures by providing informal faculty-student contact, which enhances professional self-concept and productivity, lowers life-stress effects, and reduces susceptibility to emotional and physical problems" (p.461). Pearson (1982) posits that: "...support systems contribute to individuals by providing emotional sustenance, material assistance, guidance and feedback" (p.85). Furthermore, Pearson (1982) points out that individuals perceive relationships as supportive when they give, as well as receive support.

In spite of the potential benefits of formal support groups, reportedly relatively few options exist for graduate students to obtain this type of support. de Rosenroll, Norman and Sinden (1987) surveyed 24 Canadian universities, which offered school or counselling psychology graduate programs, to assess the extent of existing support programs. Of the eight responses that the researchers received, one university was not currently operating a graduate program in school or counselling psychology, two institutions reported that they did not offer support groups, two others stated they did not currently offer support groups but thought support groups would be worthwhile, and three respondents said that support activities were currently available to their students (p.158). Therefore, even though graduate students may desire and benefit from support groups, they must rely upon other resources to cope with the effects of stress.

Lifestyle and Coping

The quality of the life experience of a graduate student depends in part, on how they evaluate this portion of their life. Whitman et al. (1984) suggest that: "...when students appraise their education as a challenge, stress can bring them a sense of competence and an increased capacity to learn...when education is seen as a threat, stress can elicit feelings of helplessness and a foreboding sense of loss" (p.9). The method which a student utilizes to cope with the experience may be a crucial element in completing graduate school.

Resources, particularly the energy level associated with physical fitness, have been recognized as mitigating factors against the negative effects of stress. Numerous researchers have described the benefits of physical exercise and reported increases in feelings of psychological well-being and self-concept, reduced anxiety, and improved mood and work behavior (Brooke & Long, 1987; Folkins & Sime, 1981; Sinyor, Golden, Steinert & Seraganian, 1986).

Bialeschki and Henderson (1986) studied leisure attitudes and recreation participation in female graduate students. Although these women indicated that recreation was a worthwhile activity, they also acknowledged limited participation in both leisure activities and recreation. The barriers to recreation as described by these women included: insufficient time, too much daily stress, and defining work and school as being more important than leisure or recreational activities. Single women appeared to be more aware of the relationship of leisure and recreation to the quality of life. Those who were also employed enjoyed more leisure hours. Reading magazines and newspapers, doing fitness activities and watching TV were the more frequent recreation activities mentioned by some of the women.

Maladaptive coping in the form of alcohol use among graduate and professional students has been studied. Waring et al. (1984) found a greater proportion of men than women to engage in heavy drinking behavior, particularly among graduate students in the sciences and engineering. Moreover, drinking styles varied with women imbibing mostly wine while in restaurants, whereas men reported drinking all types of alcohol. Both groups preferred drinking with others rather than alone, and the youngest and oldest males and females reported the most alcohol consumption. Young (1987) described a correlation between personal and emotional problems and increased alcohol use among medical residents.

In addition to the more obvious ill-effects of alcohol consumption (hangovers, loss of sleep, decreased performance, etc.) there are other less obvious side effects cited in the literature. Edwards (1987) postulated that alcohol robs the body of nutrients, which subsequently adds to an individual's stress level. Edwards (1982) states: "when nutrients are depleted, the poor nutritional status itself becomes a stressor" (p.5).

Coping strategies may not be evident in all graduate students, and may be difficult to discern in students who tend to take life easy and maintain an easy-going frame of mind. According to Holahan and Moos (1985), the more easy-going students seem to adapt to stress with very few repercussions. Whitman et al. (1984) pointed out that adaptation is more of an automatic response, as compared to coping which requires conscious efforts. In summary, easy-going individuals tend to respond automatically and with awareness to the stress in their lives, and thus alleviate the need for coping strategies.

Upon examining graduate students as a population, all students are not easy-going and therefore require a means to cope with life stressors. Whitman et al. (1985) recommended that administrators: "...provide students with a feeling of control over their education, information about what to expect, and feedback regarding what can be done to improve their performance" (p.3). Providing students with early success, according to Whitman et al. (1985) encourages 'active coping' and fosters an ability to deal with the actual stressful situation. Conversely, "...reactive coping - dealing with one's own thoughts and feelings can be facilitated by accessible professional and peer counselling, support groups and advising" (p.3).

In summary, the interrelationships among stress, nutrition, exercise, illness and lifestyle are apparent in the life of a graduate student. Regardless of the focus of stress, be it physical in nature, such as infectious mononucleosis (Barton & Hicks, 1985), or gynecological problems (Deffenbacher, 1985), or whether stress stems from a cognitive, social or emotional problem such as information overload (Arnold & Jensen, 1983), or too little money and too little time for family, friends, recreation and sleep

(Bjorksten et al., 1983), problems do exist. Graduate students can experience a plethora of physical and psychological ailments related to the unique, transitory experience of graduate school with its accompanying positive and negative life events.

G. Future Outlook - Professionals in a Post Graduate Environment

According to Katz and Hartnett (1976), the "ultimate goal of graduate and professional education is to turn out future scholars, scientists, teachers, and other professionals..." (p.3). The natural progression upon the completion of graduate school is to attain employment as a professional and therefore students tend to examine and plan for what lies ahead.

Young professionals who have recently been relieved of the status of graduate studies may be less than ready to tackle the professional world. Mallinckrodt et al. (1983) concluded that graduate students who have experienced considerable stress likely did not meet personal deadlines, took longer than expected to finish, and therefore may view their respective professions with a less than enthusiastic attitude to job commitments (p.1).

Regardless of an individual's experience in graduate school, it is evident that professionals are also vulnerable to the effects of stress. A conservative estimate by Pavett

(1986) suggests that the total for stress-related costs such as absenteeism, health insurance and performance decrements is approximately $100 billion per year in the USA. Time requirements and job demands apparently continue to be significant stressors after graduation. As indicated in the graduate student population, an understanding supportive spouse can buffer the negative outcomes of stress. However, buffering alone may not suffice. According to Pavett (1986): "the spouse may suffer from the negative emotional and physical symptoms of the stress that is transmitted by the job holder" (p.1152). Consequently, a feedback loop may emerge if the spouse also becomes a source of stress to the job holder.

Similar to a graduate student's experience of stress, stress among professionals varies in extent and intensity. Hamel and Bracken (1986) consider job-related stress to be multidimensional, and cite workload and role-related stressors such as conflict, ambiguity and role responsibility as the most significant stressors among professionals (p.785). Professionals in this study consisted of university faculty. When compared to white collar clerical and secretarial staff, these professionals exhibited higher levels of stress than either white collar or secretarial employees.

Burnout among professional psychologists was studied by Kahill (1986). Similar to the findings presented on graduate student stress, Kahill (1986) found that burnout was significantly related to lack of social support and expectations about the profession. Subjects in Kahill's study included advanced graduate students, new practitioners and experienced practitioners. The graduate students in this study reported significantly more disillusionment than practitioners. Cumulative stress, emotional and physical exhaustion, and the obsession to be 'finished' appear to contribute to graduate students' disconcerting viewpoints.

McDermott (1984) also examined burnout in professionals. Subjects were employed in the fields of college student personnel, health and mental health, administration and other professions such as engineers, water chemists, statisticians, and environmental specialists. The findings indicated that increased job satisfaction, combined with an ability to control ones environment, decreased the tendency towards burnout.

Nelson and Quick (1985) concluded that professional women are subject to chronic stress related to discrimination, stereotyping, the marriage/work interface, and social isolation in the workplace. According to Nelson and Quick, the relationship between both professional women and female graduate students and stress is significant, as both groups exhibit more stress than either housewives or men.

A comparison of the literature reviews applicable to graduate students and professionals reveals that the stress experienced by professionals is similar in nature to the stress experienced during graduate school. As Nelson and Quick have suggested, stress faced by individuals in organizations can be classified as role demands, job demands, environmental demands, interpersonal demands, and extra-organizational demands (p.207). Thus, the demands of the academic role of a graduate student appear to dissipate on graduation, only to be replaced by new demands in the professional realm.

III. DESIGN AND METHODOLOGY

A. Data Gathering Procedure

The study was survey descriptive and qualitative in nature, and focused on information acquired by two methods. Firstly, to measure levels of stress and identify symptoms of stress, the Stress Audit Questionnaire was administered to students in post-graduate programs in six departments at Queen's University in Kingston, Ontario. In conjunction with the Stress Audit Questionnaire and targeted at lifestyle information, a nutrition and exercise evaluation was also administered. Secondly, qualitative interviews were carried out with volunteer subjects representative of the research population. The purpose of the interviews was to gain qualitative information about individual student's experience of graduate school and stress, and focused on topics such as social support, coping strategies, and the perception and management of stress.

Data were gathered from graduate students in six departments at Queen's University, Kingston. These departments included: Biology, Education, English, Physical Education, Psychology and Business. Students in all departments except Biology, were approached by the writer during one of their scheduled classes and asked to participate in the study. Students in the Department of Biology were sent notices in their mailboxes asking them if they would be interested in participating in the study. (Appendix A) If the students agreed to participate in the study they were given a questionnaire packet containing: The Stress Audit Questionnaire (SAQ), a Nutrition Evaluation and a Physical Exercise Evaluation. (Appendix B)

Participation in the study was voluntary and students were encouraged to take a questionnaire only if they planned to return it. The identity of the students was to remain anonymous unless they agreed to participate in a follow-up interview. Students were assured that a willingness to complete the questionnaire did not obligate them to participate in a follow-up interview. Completed questionnaires were picked up by the writer during class time, one week after they were distributed. Responses from biology students were picked up from their department office after one week. However, additional trips were required to all departments to collect late completed questionnaires.

In total, 175 questionnaire packets were distributed to the six departments and 117 (67%) were returned. According to Kerlinger (1973) mailed questionnaires at best yield a 50 to 60 percent return, and according to Travers (1969), if subjects are not contacted a second or third time a return rate of 40% is rare. The breakdown of returns by department follows in Table 1. Twelve students (two from each department) participated in the follow-up interviews.

TABLE 1

DISTRIBUTION OF QUESTIONNAIRES BY DEPARTMENT

	BIO	ED	ENG	MBA	PE	PSYCH
# subjects approached	80	35	39	100	15	45
# SAQ's distributed	26	33	23	44	15	34
% of total distributed to all depts.	15%	19%	13%	25%	9%	19%
# SAQ's returned	18	21	9	32	12	24
% SAQ's returned	69%	64%	39%	73%	80%	71%
% of total returned from all depts.	16%	18%	8%	28%	10%	20%
% of total department represented	23%	60%	23%	32%	80%	53%

Legend:

BIO = Biology
ED = Education
ENG = English
MBA = MBA
PE = Physical Ed
PSYCH = Psychology

There were 50 males, 64 females and three individuals who did not indicate their sex in the total sample. The mean age of the total sample was 28.3 years and the mean length of post secondary education was 5.6 years (non-responders were excluded from these calculations). Twenty five of the students were enrolled in doctoral programs, ninety were enrolled in masters programs and two did not indicate a program. A summary of demographic information is presented in Appendix C.

Additional demographic information was provided in the Stress Audit Questionnaire. This information included: marital status, year of program, number of children, and whether or not the individual had consulted a medical or mental health professional in the last six months. This information is also presented in Appendix C.

B. The Instruments: Stress Audit Questionnaire

The Stress Audit Questionnaire is a comprehensive survey of the most significant psychological and physiological symptoms of excessive stress. It measures stresses in the recent past which have an effect on the present, as well as stresses in the predictable future. The questionnaire relates the major systems of the body and provides a measure of three areas of stress; situational, symptoms and vulnerability. The situational area is composed of six subscales which are: family, individual roles, social being, environment, financial, work/school. The symptoms area includes seven subscales which focus on the following systems: muscular system, parasympathetic nervous system, sympathetic nervous system, emotional, cognitive system, endocrine system, immune system. The vulnerability area addresses vulnerability to stress and is not subdivided. The instrument does not provide a total stress score. The authors of the Stress Audit Questionnaire (SAQ) report that it is internally consistent, has high test-retest reliability, and has exceptional construct, concurrent and predictive validity (Miller, Smith, & Mehler, 1986). Reliability coefficients are presented for both Past and Future ratings. For the Past, the coefficients range from .78 for the endocrine scale to .94 for the work/school scale. The Future coefficients range from .83 for the endocrine scale to .95 for the work/school scale. Cronbach's Alpha, another estimate of internal consistency/reliability calculated for the same sample also indicates a high degree of coherence and reliability. These coefficients ranged from .87 to .93. Intercorrelations among subscales resulted in concurrent validity correlations of .40 to .70.

Nutrition Evaluation

The Nutrition Evaluation (Adams, 1980) was designed to test an individuals awareness of and adherence to the principles of good nutrition. The nutrition evaluation is a self administering scale consisting of 18 items. Respondents are asked to indicate the frequency with which each item applies to them. The available responses range from "never" to "always". Items one through 14 are positive and items 15 through 18 are negative. Total score is calculated by subtracting the total negative score from the total positive score. Percentile scores derived from the evaluations of 440 managers and administrators, who attended stress workshops, are presented for comparison.

Physical-Exercise Evaluation

The Physical-Exercise Evaluation (Adams, 1980) was designed to provide an individual with an assessment of their present level of physical exercise. It is a self administering scale consisting of 10 items. Respondents are asked to place an X beside the question if they currently practice the activity. The total number of X's represents the number of physical-exercise activities presently practiced by the individual in one week. As with the nutrition evaluation percentile scores derived from the evaluations of 212 managers and administrators who attended stress workshops are presented for comparison. Further psychometric information was not available on the nutrition and physical-exercise evaluation by Adams.

C. Qualitative Interviews

In an attempt to understand how the subjects construct an understanding of their world, a qualitative approach was employed. Unlike structured interviewing, qualitative interviewing is flexible and dynamic, nondirective, unstructured, nonstandardized and open ended (Taylor & Bogdan, 1984). In essence, the researcher becomes the research tool, and by interacting with the subject learns what is important to the subject and consequently what questions to ask. The researcher does not delineate the questions prior to the interview but, does utilize a list of general areas or topics to cover and may use this guide as a reminder throughout the interview.

According to Bogdan and Biklen (1982), a guide presupposes a certain degree of knowledge about the people one intends to study. This knowledge according to Mostyn (1985) can be derived by associating previous research. In this case, data from the researcher's pilot study (Hames, 1987) were applied while formulating the interview guide. (Appendix D) For example, one of the findings from the pilot study revealed that males were more vulnerable to stress than females. Thus, with this knowledge the researcher set out to acquire lifestyle information from the subjects. This information included such things as; nutritional habits, exercise and leisure activities, and socializing.

Within the interview situation the researcher, with the help of a guide, can judge when to ask certain questions and how to phrase them. Further, in a relaxed and conversational manner, the researcher attempts to construct a situation that resembles those in which people naturally talk to each other about important things. Not surprisingly, it is this personal relationship between researcher and subject which is the key to collecting qualitative data.

D. Evaluation of the Data

Correlations of exercise, nutrition and vulnerability scores to individual subscales, and to total scores of the Stress Audit Questionnaire were done on the total sample, using the Pearson product-moment correlation. Analysis of variance, t-tests and the Bonferroni procedure were used to compare group means and determine whether various subgroups differed in their performance on the Stress Audit Questionnaire (SAQ) or on the exercise, nutrition and vulnerability scales (lifestyle). Descriptive statistics of SAQ scores as well as nutrition and exercise evaluation results are presented in Appendix E.

Data from the qualitative interviews were gathered according to methods recommended by Spradley (1979), Mostyn (1985), and Taylor and Bogdan (1984). In summary, this method included developing hypotheses, carrying out interviews using open ended and descriptive questions, testing the hypotheses, reviewing transcripts of interviews looking for themes and trends.

An elaboration and explanation of the data analysis is presented in Chapter IV and Chapter V.

E. Delimitations of the Study

This study is survey descriptive and qualitative in nature and focused upon a group of graduate students in six departments at Queen's University in Kingston, Ontario. In most departments the students represented only a fraction of the total enrollment in their department.

F. Limitations of the Study

The major limitation of this study is synonymous with the central issues in using volunteer subjects. Problems arise specifically, when generalizations are made to entire populations since data from a volunteers only group, may be biased (Raymond & King, 1973). Based upon consistent findings McLaughlin and Harrison (1973) and Rosenthal and Rosnow (1975) describe volunteer subjects as having higher educational and occupational levels, a higher need for approval, higher intelligence, and lower authoritarianism than non-volunteers. In light of the fact that the subjects for this study all have higher educational levels, presumably higher intelligence levels and no full time occupation, only the characteristics of need for approval and lower authoritarianism perceivably could bias the results.

Secondly, poor time management typically increases stress and promotes a feeling of not enough time to do things. Therefore, those students who may have been experiencing a great deal of stress in their lives might have also felt they did not have enough time to complete the questionnaire. Thirdly, due to the sensitive nature of the self-report questionnaire (ie. discovering and revealing areas of stress in your life), subjects may have been reluctant to answer questions accurately.

It must also be noted that norms are currently not available for the exercise and nutrition evaluations used in the study. In light of this limitation, results must be interpreted cautiously.

IV. QUANTITATIVE RESULTS

The Stress Audit Questionnaire (SAQ) was designed to provide individuals (or groups) with a profile of their stress scores. Through the use of the profile sheet, scores can be adjusted to T-scores, and compared to the normative sample. According to the authors of the SAQ, (Miller et al., 1986) a T-score above 50 represents the upper 50% of the population and indicates a problem with stress. A T-score above 60 represents the upper 15% of the population and indicates trouble with stress, a T-score above 70 represents the upper 2% and indicates high stress, and a T-score above 85 represents the upper 1% and indicates very high stress. Miller et al. suggest that T-scores should ideally be below 45.

The T-scores for the total sample on the situational, symptom and vulnerability scales were 48, 49 and 49 respectively. The T-scores for each department on the situational, symptom and vulnerability scales were as follows: Biology 47, 49 and 50, Education 47, 47 and 48, English 56, 56 and 55, MBA 47, 47 and 50, Physical Education 49, 51 and 49, and Psychology 47, 48 and 48.

The data analyzed, consisted of the age and years of post secondary education for each subject, as well as scores on each of the following scales: exercise, nutrition, vulnerability, situation and symptoms. In addition to these continuous variables, categorical variables were used to allow the subjects to be grouped for statistical analysis based on department, degree and thesis. Additional categorical variables were created for age (equal to or less than the median age of 26 years versus those older than 26 years), family status (those living as singles versus those living as couples), years of education (those with less than 6 years of post secondary education versus those with more than the median of 5 years) and year of program (those in their first year versus those in subsequent years). Descriptive statistics for all continuous and categorical variables are given in the tables of Appendix E. Separate tables are provided for the total sample and for groupings by each categorical variable.

An analysis of variance was performed on all continuous variables with department as the independent variable. Significant differences were further investigated by performing t-test analyses on each of the 15 possible two department combinations. The Bonferroni procedure was used to calculate the probability necessary for statistical significance and this value was used to evaluate the t-test results. The procedure requires that the level of significance be divided by the number of comparisons. The resultant product is then used as the probability limit necessary for statistical significance (.05/15=.003).

The ANOVA revealed significant differences between the means of the variables exercise (F=2.923, p=.016), situation (F=2.968, p=.015), age (F=12.023, p=0.0), and years of education (F=3.385, p=.007). The results of the ANOVA are given in Appendix F, Table 12.

A t-test analysis of each of the 15 two department groups revealed that on the variable exercise, Physical Education subjects were significantly higher than those in the English department (t=3.977, p=.001). On the variable situation, mean scores for the English department were significantly higher than those of subjects from Biology (t=3.827, p=.002), Education (t=3.317, p=.003), MBA (t=4.030, p=.002) and Psychology (t=3.623, p=.002).

Education department subjects were significantly older than subjects from Biology (t=3.894, p=.001), English (t=4.299,p=0.0), MBA (t=4.231, p=0.0), Physical Education (t=6.902, p=0.0) and Psychology (t=4.116, p=0.0). Physical Education subjects were significantly younger than their counterparts in Biology (t=4.507, p=0.0), Education (t=6.902, p=0.0), MBA (t=5.462, p=0.0) and Psychology (t=3.910, p=0.0).

On the variable of years of post secondary education, subjects in the department of Physical Education were found to have significantly fewer years than subjects from Biology (t=4.577, p=0.0), MBA (t=3.116, p=.003) and Psychology (t=3.206, p=.003). Bonferroni t-test results are summarized in Appendix F, Table 13.

A t-test analysis was also performed on all continuous variables with the data grouped by the various two level categorical variables. A .05 level of significance was used to evaluate the results.

Females scored significantly higher on the variable nutrition (t=2.284, p=.024) when compared to males. Subjects older than the median age of 26 years had significantly more years of post secondary education (t=3.452, p=.001). Singles scored significantly higher than their counterparts who lived as couples on the variable symptoms (t=2.073, p=.041) and singles were also significantly younger (t=2.830, p=.006). On the variable, vulnerability, singles scored higher than couples (t=1.961, p=.052) but the difference was not significant based on a level of significance of .05. By-group t-test analysis results are given in Appendix F, Table 14.

Pearson product correlations were calculated for all possible combinations of the continuous variables. A correlations matrix is given in Appendix F, Table 15. Based on a level of significance of .05, correlation coefficients exceeding .195 were considered to be significant. Thus, significant correlations were found between age and nutrition (.221), vulnerability and nutrition (-.515), symptoms and nutrition (-.222), vulnerability and situation (.394), vulnerability and symptoms (.409) and situation and symptoms (.801). When the situation and symptom variables were divided into there past and future components, strong positive correlations were found between past and future scores (ie. situation, .872 and symptoms, .914).

V. QUALITATIVE RESULTS

The purpose of the qualitative interviews, as mentioned in Chapter I, was to gain information about the lifestyle and the experience of stress of post-graduate students. Of particular interest to the researcher was information regarding both social support and coping resources as well as possible relationships between levels or symptoms of stress in the student's lives. It was felt that the interviews would provide descriptive data that previously had not been published in studies focusing on graduate student stress. It is this lack of qualitative data in documented research which makes the current findings all the more notable.

Twelve students, one male and one female from each of the six departments surveyed participated in a one hour in-depth interview[1]. Subjects were selected from a group of subjects who had volunteered to participate in a follow-up interview. Those selected were felt to present profiles which would give a picture of the composite. The interviews were tape recorded and transcribed.

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[1] The analysis is based on 11 subjects as one tape recording was of poor quality and could not be transcribed.

The researcher utilized an interview guide which comprised the following topic areas: background information regarding family and origin, current living conditions, occupation prior to graduate school, and previous lifestyle; feedback on completing the SAQ; means of alleviating stress; interpersonal relationships and supports; perception of personal stress level; specifics about the interviewees graduate program; and future plans and expectations about stress.

The data is presented in a case study format and depicts the individual experiences of three female and three male graduate students. The six case studies were chosen from those available on the basis of the subject's score on the situational scale of the SAQ. Using the total sample mean situational scale scores for females and males, subjects were chosen who most closely represented a high, mid, and low score. Thus, the case studies include a female with a high score, a female with a mid score, and a female with a low score on the situational scale on the SAQ, and likewise for the male subjects.

The situational scale on the SAQ was chosen as the variable which most closely provides a measure of life events and total stress. A case study approach was chosen to present the data, as it was deemed to be the most appropriate way to provide the reader with a complete and genuine picture of an individual's experience as a graduate student.

Following the case study presentation, excerpts from the remaining five subjects are given, in support of common threads and themes which were revealed in the case studies. For practical reasons of document length and ease of reading, only six of the 12 case studies were presented. The entire transcript of one interview (with subject with mid situation score) is presented in Appendix G with the subjects' situational score being at the mean of the total sample.

Case Studies

Subject T. (female with high situational score)

T. is a female doctoral student in the Department of English at Queen's University. She is divorced and presently unattached and has three children, all boys age 13, 5 and 4. She is new to the city having moved from Regina in 1988. Her choice of Queen's over other schools was based primarily on the availability of daycare and support systems, and the cost of living, whereas the quality of the program was secondary in her decision process. She has parents and siblings in Ontario and has been able to rely on them periodically for help with the children.

> Most of my family is in this area now....I do see the sister in Napanee,(Ont.) fairly often. My parents were here the end of last term to help me out with the kids because, you know what the end of the term is like. So I was lucky to have that

> support. If I hadn't, if they hadn't been in the vicinity, if I couldn't have been able to find someone else to do that for me, I don't think I would have made it through first term.

Apart from her own coursework and family obligations T also has a teaching assistantship. When asked what was the most stressful thing for her in her current lifestyle T referred to the demands of juggling her academic career and her parenting responsibilities.

> ...my family life and my career as a student...mainly because I'm always torn between those two things. I like to study, I love my children, but I always find that I...I'm sacrificing one for the other. I never feel as though I do a really good job of being a mother or a really good job of being a student because I'm required to juggle both things always...a continuing source of stress.

Not surprisingly, T identified feeling tired as another source of stress in her life. Contributing to her tiredness may be the fact that she usually gets less than seven hours of sleep each night and sleeps in the living room since her children share the two bedrooms in her apartment. She reports having only a closet as her personal space. In spite of the demands in her life, T states that she tries to eat well and exercise.

T noted that she exhibits few physical symptoms in light of her situational stress level. In reference to completing the questionnaire T reports:

> I remember thinking that I feel as though I'm under a lot of stress but I don't really show a lot of symptoms of stress. So maybe I'm either not under as much stress as I think, or else I handle it better than I think.

When reviewing her answers to the SAQ questionnaire, T remembered answering that she sometimes gets frustrated, angry and irritated and occasionally feels desperate and helpless. However she reports that these instances are infrequent and that she really doesn't "have time to wallow in self-pity" which she felt might be a good thing.

T suggested that her ability to cope with the stressors in her life was connected to the fact that she is 36 years of age.

> I think the older a person gets the more they realize they can just hang on and ride through it...10 or 15 years ago I would tend to panic and feel a lot more depressed about things than I do now. I think I just try to maintain some kind of self control and know that...tomorrow things will probably look different and if I can just get through today...

With respect to a social life, T reports not having one because she does not have the time nor does she have many personal connections in Kingston. She reports feeling that she has no one to talk to in Kingston, but maintains contact, through letters, with friends in other places. Her leisure activities are spent almost exclusively with her children, and include going for walks, exploring museums, shopping and watching TV. In her words, "other than that, I really don't have time to do a heck of a lot". However, she looks forward to making friends and having some kind of social life in Kingston. Even though she has difficulty imagining how someone could fit into her busy life, she would like to share it with someone through a romantic relationship.

When asked to compare her stress levels to those of her classmates, T was reluctant to do so and suggested that "it's a very subjective thing trying to evaluate the kind of stress you're under". She admitted feeling occasionally envious and reported missing the social life, when her colleagues went to the Grad Club for beers at the end of the afternoon or went out for dinner.

In terms of career goals, T identified two. She would like to write, research, and/or do public relations for an environmental or conservation agency or alternatively, she would like to teach at a university. In her opinion, being a university professor would be every bit as stressful as what she is doing now.

A central concern for T is that she feels there is never enough time to do everything and that there is conflict between "trying to fulfill the duty of a student and a mother all at the same time".

When summarizing her thoughts as a graduate student, T replied:

> I think it's an unfair assumption for departments and university administrations to make that students are single and they have 24 hours a day to be students...ought to have more support within the system...so that the system supports people...I feel as though I can never do the best I can...

Subject R. (female with mid-range situational score)

R. is a 22 year old female doctoral student in the Department of Psychology at Queen's University in the first year of her program. She started her doctorate immediately upon the completion of her masters. She is originally from New Brunswick where she did all of her public schooling. She obtained her undergraduate degree in psychology in Montreal at McGill. According to R, once graduate students in the Department of Psychology at Queen's complete their course work at the master's level, prior to finishing their master's thesis, they are automatically moved into PhD one (ie. the first year of the doctoral program). She describes her doctoral program of consisting of courses, practicums, papers, summer internships and comprehensive exams prior to the requirement of a doctoral thesis.

When asked to compare her stress level to her colleagues R stated she felt her's would be less. She suggested she had less stress because she put more stress on herself to perform,

> ...I have less stress in those areas, I put more stress on myself for doing well and completing things fast. Evidence comes from finishing my masters in one year.

Further, R suggested that her peers look upon her as unstressed "when my classmates are frazzled I tend to just lay back and sort of ignore it".

In reference to situational stress R reported that it was a "bad year for deaths":

> Our dog died which was surprisingly very hard for us all because he was 13 years old and my uncle died, my great uncle, and my mom's mom died...it was really stressful. I had quite a few days of crying then.

In spite of being geographically separated from her immediate family she reports "getting home" at least three times a year and feels she has developed significant supportive relationships away from home.

> I find you get a lot of support from the other grad students and you get to be quite close with them.

R lives in an apartment with another female graduate student, who also studies psychology, and finds the arrangement very comfortable. She reported that her roommate was "quite an ally". Although R has had romantic relationships in the past, she currently does not and finds her single state a source of stress at times.

> ...at times you really get lonely and feel as though, I mean you're alone in the world and there's nothing else to keep you, I mean, why am I, why am I here type of thing. I mean that happens once in a while. I think maybe once every three months I go through that phase. I think in grad school that's typical, like why am I doing this to my life, wasting five years...not wasting, but using five years that could be used for something else.

Other sources of stress identified by R included receiving phone calls from her clients at all hours of the day and night, relationships with the four graduate students with whom she shares an office, monetary issues and lack of funds for recreation. According to R, most of her money goes to her membership at a local aerobics club.

> That's where all my money goes to, but I find it worth it because that's my way of, dealing with stress. Unfortunately sometimes it gets to be a stress because you want it so much. I mean it's all

> related to this addiction thing...I find if I don't do it it's more stressful than if I do. So maybe that's why it's stress releasing I don't know.

She reports exercising at least once a day, if not more and includes aerobics, squash, weight training, and a stationary cycle as part of her activities. She enjoys sports and states, "I am active, I don't try to be".

R does not see her exercise activities as a direct coping mechanism, she states that "it makes me feel a lot better regardless of whether I was feeling bad to start with". She identified other activities in her life which she considers to be coping mechanisms. These included belonging to the "Tactile Therapy Club" which entails meeting with other graduate students weekly to do crafts. Other activities included going to movies occasionally, going out dancing every month or two and watching TV.

In contrast to the above activities, R feels she sometimes withdraws as a coping mechanism.

> ...during my thesis I was feeling really stressed out and I just didn't want to be with anybody. I think sometimes I just sit in my room and I'll read or I'll do crossword puzzles or something like that...being quiet by myself. Quiet time.

At the time R was interviewed, she identified being in a state of transition which she found very stressful. She reported that when she finished her master's thesis and started her doctoral course work, the decrease in work load was difficult to handle.

> I've felt pretty useless in the past few months because, as I say, I've been going to school since the age of three or whatever and I've always had lots to do...I don't have any thesis to work on, and practicum hasn't started, or it's finished...So I find that a bit difficult...I find it very hard not to be busy...I do find it difficult to relax...I do it but sometimes I tend to feel guilty about it.

R feels she has adequate support in her life and would have no difficulty finding someone to talk to regarding academic or personal concerns. In reference to academic concerns she feels she would turn to her supervisor, professors or office mates. For personal concerns she talks to her roommate, office mates and her sister, who she calls weekly on the telephone. As she puts it, "the support around here is quite, quite substantial".

In reference to physical symptoms, R explained that she had recently been diagnosed as lactose intolerant, and found that modifications to her diet had eliminated many troublesome physical symptoms (eg. gas pains, nausea, heartburn, constipation). She also reports experiencing migraine headaches once or twice a year. "But I know when I get a migraine headache, I don't do anything. That's when I allow myself to relax...it usually happens after stress."

R does not expect her stress level to change in the future unless she gets more involved in her work and starts to "bring things home" with her. She does identify her single status as something she hopes will change in the near future and would like to have a romantic relationship. She describes the future and doing her doctoral thesis as a period when there will be little time for herself.

> Well, it, it gets difficult because you're trying to do research, you're trying to do course work, you're trying to live your life,...you're trying to do physical activity in terms of friendships and it gets very, very..focused which makes it very difficult....it's basically no time for yourself which is stressful, I find.

In spite of this, R reports being very satisfied with her graduate program and feels she has learned a lot. She summarizes her experience as,

> Being a grad student is fun. I know it has its stressful points, like major stressful points, but I think it's a really nice lifestyle, I'd love to be a student all my life basically....but like I say, it comes in waves, peaks and ...valleys.

Subject M. (female with low situational score)

M is a 26 year old married female enrolled in a master's program in the Department of Education at Queen's University. She has been married for three years and has no children. Her husband is currently enrolled full time in an MBA program at this same university. Although she and her husband are originally from Hamilton, they were living in Ottawa prior to coming to Kingston. M taught in Ottawa for three years before she decided to pursue graduate work. Of interest, is the fact that M and her husband spent last year living apart when he commenced his MBA in Kingston and she completed a teaching contract in Ottawa. She explained that her husband commuted on the weekends to see her and that it was a very stressful time for them. M thinks that her intent to pursue graduate work was hastened by the fact that they did not wish to live apart for a second year. Therefore, she decided to move to Kingston and start her M.Ed. rather than remain in Ottawa and teach.

M reported that her scores on the SAQ were actually higher than what she would have predicted and felt this was because "...it pointed out some areas of stress that I didn't really think about until they came out on there (SAQ)". However, in comparison to her peers she felt she would be at the lower to middle end of a scale from 1 to 100.

Further reflection by M on her responses on the SAQ revealed that she found finances, schoolwork and family to be the most stressful areas. In reference to finances, and the lack of family income, M stated,

> ...we have a limited amount of money that is continually declining, and...although it's not really stressful right now because we're still okay, the stress comes in whether it's going to last long enough to get us through the whole situation.

In terms of schoolwork M reported that her stress was a result of time pressures and the amount of work.

> ...to get it all done in a certain amount of time, and to be working on different things all at the same time...trying to work on everything at the same time is difficult...

Time pressures seemed to interfere with her relationship with her husband. She reflected on not having enough time together:

> ...with us both in school, and I have night classes when he has day classes, and we don't get to spend that much time together...we don't eat together as much as we used to...Don't see each other...

She suggests that having a spouse who is also a graduate student contributes to the lack of time spent together. M expressed some frustration regarding responsibility for household duties because she tended to do most chores as her husbands program was viewed as more demanding than hers.

> ...it frustrates me that I end up being responsible for a lot more of the daily chores...like laundry

> and groceries...he doesn't have time for because of his schedule. Which I really don't have time for either, but end up making time because my schedule can be more flexible.

M also reported that an illness in her immediate family had caused her a great deal of stress and that she found herself worrying about it. She stated that when she worried she was unable to sleep and sometimes got an upset stomach.

According to M, her nutritional habits are "all right" and her exercise habits are not very good. In spite of their busy routines, M stated that she and her husband tried to have "one balanced, regular hot meal a day - usually dinner". In comparison to the time she was not a student, M felt that it was harder to maintain good nutritional habits.

> It's harder to have regular meals and it's more of an effort to make sure that you do. And I think that we get so busy at times that we'll eat a lot more food quickly, and just things that we don't have to take so much time to cook.

She thought that she drank too much coffee and tea and admitted to eating "junk food, too - almost like in addition to what I eat".

When asked if she did anything particular to help alleviate the stress in her life, M was able to highlight several things. Talking about troublesome things helped and she usually talked "to her husband about it, whether he wants to hear about it or not, and I find that talking about it usually relieves my stress". Secondly, she identified "doing something" as a stress reliever.

> ...if it's school-related stress taking some time and just doing something totally unrelated and something that's fun will alleviate...social things like going out - bars and parties...or just taking a day and, for a couple of hours, going shopping, out for lunch...or going away for the weekend. Something like that, either going home or going to Ottawa to visit friends. They get rid of stress for me.

M reported belonging to a group known as "Stitch and Bitch" which consisted of wives of MBA students who met weekly to do crafts, drink wine, bitch, and "talk about the common things". M identified the comradery, the relief from schoolwork, and the opportunity to talk as the important functions of this group.

Doing things on her own such as shopping, walking, and taking a bike ride were identified by M as stress releasers, as was time spent with her husband going out for dinner or drinks. M also reported that she went to church regularly and that this gave her a chance to "introspect and think about things from a slightly different perspective".

When asked to priorize the things in her life which helped alleviate stress M ranked support things as most important. More specifically M identified time spent with her husband as most important, followed by time with friends and finally time spent alone.

Predicting future stress was difficult for M, primarily because she described experiencing many changes in her life in the recent past.

> ...it's hard to say because I've been having this kind of life - and, by this kind of life, I mean a lot of changes all the time - I'd say for the past six years. And it's almost becoming the customary pattern of - I've moved every year in the last five years, and I guess the more you do things the less stressful they become.

M expects that future events related to her next teaching job to be as stressful or more so than her life as a graduate student. She explains,

> ...as a general rule, I don't find being in school as stressful. I find it more...self-centered - at least that you're only responsible, mainly, for yourself, and in teaching you become responsible for a class...you're responsible to a lot of people.

Subject J. (male with high situational score)

J is a 25 year old single male enrolled in the first year of a Master's program in the Department of English at

Queen's University. His family lives in Barrie, Ontario and he did his undergraduate degree at Trent University in Peterborough. He currently lives in a one bedroom apartment by himself. He describes his living arrangement as "fairly comfortable" and about a ten minute walk from campus. At this point he is uncertain whether he will go on for a PhD or go to teacher's college. He reported that this decision would be made on the basis of how well he did academically this year and whether he received any scholarship offers for doctoral work.

J identified not having enough time to get things done as a primary stressor for him.

> ...not enough time to get things done...I think that's part of any academic setting. I think they purposefully give you too much work so that you can... to make you put some priority on what it is that you're working on at any given time.

Prior to the Christmas evaluation time J said that he experienced a great deal of stress "justifying your presence here". J explains this:

> ...it seems being in a new school, being in graduate school you're really anxious to find out how you're doing. You want some kind of reassurance that you are where you're supposed to be. You do have some sort of right to be where you are and in December, not having got any marks back

> whatsoever, all that was completely up in the air, so it seemed, for me anyways...

J recognized that he put a certain amount of pressure on himself but also reported that he found his professors much less personable when compared to his undergraduate professors. He elaborated by stating that he felt it was his unfamiliarity with them that made things difficult. Specifically, he stated that "...not knowing...those expectations until you get to know them, it's an unnerving situation, I think".

Part of the situational stress J experiences comes from setting goals. He reveals:

> ..for me anyways being at graduate school, it's not just a question of just another year in school, it's going to determine what I'm going to do for the rest of my life, whether or not I'll go on to Teacher's College or I'll go on to do a PhD. Its a fairly big consideration, something that's going to dictate what's going to happen the rest of my life for a long while. So...that weighs heavily on my mind.

In spite of having a scholarship and a teaching assistantship, J reports the "ever present money problem". J states that although "...it seems like a fairly generous scholarship, it doesn't go nearly as far as you'd think it would, I've discovered." Furthermore, the teaching assistantship is another source of stress for J, particularly the responsibility of doing the "occasional lecture". J describes the act of doing a lecture as "it's as much something I dread as I look forward to". His dread comes from the thought of standing up in front of a crowd of 100 people.

Although J knew a few friends in Kingston prior to his move, he describes the move as "a fairly major transformation". The move caused J to experience many changes, one of which was living alone for the first time in his life.

> ...it's the first time I've lived by myself and being from a big family too, it just takes adjustment, you know, eating by yourself is probably the biggest thing....I'm used to always being around people when I'm at home.

He further stated that he misses having someone around to talk to and did not think that he would live alone in the future. With respect to eating, J describes it as a chore and something from which he does not get much enjoyment from.

> ...eating becomes kind of something you have to do, it's a function, it's not something you look forward to, it's a distraction to me. You wish you didn't get hungry, but occasionally I sit down and make a nice meal and stuff and invite friends over, but more often than not, it's just kind of eat

> something, fill my stomach up and get out of the kitchen.

In response to the question of what is most stressful in his life, J reported that it was "school work, due dates, whether or not I'm going to meet them". As a result of these stressors, J revealed that he experienced anxiety, frustration and anger prior to receiving any feedback on his performance. He also reports that he smokes cigarettes and drinks a lot of coffee, "...so much coffee that you go way beyond any productive point".

J copes with his stress in a number of ways, specifically, he reports that he runs, reads novels in addition to academic requirements, watches the news on TV, gets together with friends, goes out for a beer or a walk. Reflecting on the reading he does, J stated "...at times it becomes too easy an escape and you just start novels, whether or not they're applicable becomes kind of questionable, you know...".

In times of need, J states that he often phones his girlfriend, or talks with fellow MA students who are in similar situations. In this regard, J feels he has a large network of friends in Kingston. When asked to compare himself to his peers in regard to stress level J said,

> ...I guess I'm somewhere in between being completely flabbergasted and being completely on top of things...I guess I'm somewhere in between, I

> don't, I don't feel I suffer more than anybody else does."

In summarizing his experience as a graduate student, J reported that the most stressful thing for him was:

> ...whether or not I'm going to succeed. Whether or not I'm going to be accepted academically ...being accepted academically which translates to getting good marks, a good record.

With further reflection J revealed:

> ...when things aren't stressful, it is fun actually. I think that anybody that's in graduate school in English they're there because they like, they enjoy reading, they enjoy literature, and you've got to do an awful lot of that...it's not a torture all the time.

Subject B (male with mid-range situational score)

B is a 26 year old single male currently completing his Masters of Business Administration at Queen's University. He is originally from Montreal where he did an undergraduate degree in biochemistry at McGill. B reported that he is the third child of five and has two sisters and two brothers. Prior to commencing his MBA studies, B worked full time in a company where he did a number of jobs including shipping, purchasing, inventory control and office management.

B describes his living arrangement as very pleasant, and does not see it as being that stressful.

> ...I'm living with one other person in a nice big old...limestone mansion right down by the lake. It's probably the nicest apartment I've ever been in...the quietness, the comfort, the feel of the place, and certainly the location.

Similarly, he describes his roommate and their relationship in equally as positive terms. His roommate is a fellow MBA student who B finds to be "a source of entertainment".

When asked to reflect on completing the SAQ questionnaire, B stated that he found it to be an eye-opener because it made him "...reflect on just what aspects were stressful and what the stress was doing to me". In reference to situational items that he found most stressful, B commented that the first thing to come to mind was not having enough time to get things done. Of interest, was that B attributed this problem to the MBA program itself.

> ...a function of the MBA program...they're idea is to inundate you and so what you do is try and achieve everything, but you don't do anything with any great quality...the satisfying thing. I didn't hand in anything last term that I thought was quality work that I was proud of, it was simply, you know, close the book and open up the next book.

The lack of time to do things was not entirely attributable to the MBA program according to B, who discussed other intervening factors which affected his performance.

> ...other times you're simply, you're more lackadaisical, you're a little bit burned out, and...you end up watching Star Trek at midnight knowing that you should be sleeping, but you're just a little bit fed up and all you want to do is relax and have some time to yourself.

Embedded in B's concern about having enough time to do things and needing to take a break are concerns about being disciplined and performing up to par. At the same time B discusses the reality of the situation and how he tries not to loose sight of that.

> ...you just say to yourself that look, so what if I fail this exam, I'll get a low mark in this course. You know deep, I've never lost sight of the fact that in six month's time or two year's time, it's just going to be a little obscure number that nobody will ever have looked at in the long run. In the long run it won't stop me from getting anywhere. And in the short run it really doesn't matter.

In spite of identifying these feelings, B states that he is surprised at just how stressed out he actually gets. He reports that he still "...runs around...goes crazy...looses his temper..." and gets angry and frustrated. Thus, although he feels the life as a student is "artificial" and more like a "game" it also "gets to him". He spoke about the "complexity" of what he was expected to know and how he felt "insecure" and "uncertain". B reported that "...at times I just felt like I didn't really know what was going on around me". He elaborated that his insecurities were partially a result of feeling that the program did not acknowledge an individual's qualitative aspects in an outward manner. Yet, inwardly he felt that some professors were more subjective in their evaluations.

> If you got along well with the professor, then I think they knew who you were and they were more sensitive to the stuff you were doing and they knew how you felt and were able to evaluate your work in that context as opposed to just having your assignment and not having anything to reference it against.

B reported that in response to the demands in his life, he started to worry about his health,

> ...I started getting awful headaches, awful, just stress headaches. They weren't severe but they were chronic and recurring and I would wake up with a headache in the morning and I would wake up with a headache in the middle of the night, and I started just living off aspirin.

Related to this B reported having tight muscles from sitting and reading.

Other symptoms which B described in some depth were feelings of depression and frustration related to his academic performance and his life in general. He identified part of the frustration and depression as coming from his drive to be successful when compared to his classmates.

> ...including myself, are a fairly driven people and driven to succeed and when you're, you don't meet that success or you're not rewarded for your effort, then you feel frustrated and frustration turns to depression when you don't get the satisfaction you want...I think in an aggregate sense I'm subject to depression, and feelings of frustration, inadequacy. And again I think that comes from comparing myself to the top people.

Related to his feelings of frustration and depression, B also stated that he experienced anxiety, poor concentration and poor memory. B described himself as becoming "really dysfunctional where I could not keep...a straight line of thought". Further, B reported feeling tired and fatigued and at the same time seemed to recognize that he was "abusing" his system.

> I was really surprised at how well I could function on what little sleep I was getting....4 1/2 - 5 hours of sleep for extended periods of time, maybe 5 or 6 nights in a row...doing awful things to my system...living off reserves.

In comparison, B reported being satisfied with his eating habits and recognized that he is able to control his physical fitness level "as a weapon in combatting any other kinds of stress". He stated that he concentrates his exercise on cardiovascular stuff such as running, squash, cycling and swimming. He exercises rigorously three or four times a week and prefers a social setting, such as squash.

B discussed the importance of a social outlet and reported that he was dependent upon it. He discussed being able to "let off steam" and telephone classmates and have them respond. In some respects he said that he might be too dependent on other people's whims as he feels "let down" when others do not participate socially. Activities B identified as social and fun included:

> ...one of my favourites is just going out with the guys...to a bar, the Grad Club, drink and talk. I've been watching a lot of movies lately where we get a bunch of guys together and, get some video tapes and just eat popcorn and talk, and mostly it's just to be in the same room doing quiet stuff and some other distracting activity, but basically just talking, interacting.

B indicated that approximately 90 to 95 per cent of his time was spent with people in his program. Other activities B commented on were watching late night TV "just for the pure pleasure of it" and having people over for dinner.

When asked who he would turn to if he needed to talk to someone, B identified different people depending upon his problem. If the concern was school related, B reported that he would talk with a colleague because "there's that sense of empathy". For other problems, B stated that he would talk to an old girlfriend in Montreal or another friend in Toronto because they "cheer me up" and "reinforce my good points and just make me feel a little bit better about myself".

In comparison to his colleagues B felt that his stress level was "somewhere around the middle, maybe slightly better". He also highlighted the importance of humour in combatting stress in his life.

> I think, if anything, the one personal attribute that I've improved the most in this program,...is certainly sense of humour....certainly an effective anti-stress device. To be able to laugh at yourself, I think is an important aspect of being a masters student in a stressful program.

The future, according to B, will be more stressful because in his eyes it will be the "real world". Coupled with this, at the time of the interview, was the anxiety of finding an acceptable job and relocating. In summarizing his experience, B used the word 'utopia'. When questioned why he would use this word to describe an experience that he had found to be stressful, he replied:

> ...utopia in the sense that the stress is very

intense and because you're a committed person...at the same time I know when I walk out of here...all the stresses that will have occurred...have long since washed away, it's not permanent stress...an analogy...it's a video game where you're on a steering wheel and you're driving this car way too fast and...you crash into an oncoming truck and the truck hits and you laugh...and press the reset button...You can afford to make mistakes here, you can afford to benefit from the mistakes you make, and use those to improve yourself and that's why I think it's an utopia.

Subject G. (male with low situational score)

G is in his second year of a master's program in the Department of Physical Education at Queen's University, specializing in exercise rehabilitation. He did not specify his age on his SAQ questionnaire. He is originally from Perth, Ontario which is "about 50 miles from Kingston" and is the youngest of five children. He came to Kingston in 1983 to do his undergraduate degree in Physical and Health Education and upon completion proceeded directly to a master's program.

When asked to describe what is entailed in doing a master's in Physical Education, G initially replied, "a lot of hard work". He then went on to describe his program as comprising of coursework, a project proposal for a project, a project and internships. His internship was described as consisting of 150 hours practical work at a rehabilitation hospital and 75 hours at the campus fitness center. When asked to clarify the difference between a thesis and a project G suggested that the major differences were that a project required less detail and no oral defense.

At the time of the interview (January 1989) G was planning to finish his project and convocate in May. He planned to start work upon completion of his project to finance his studies at The University of Western Ontario, Faculty of Education next year.

G described his graduate student experience as "for the most part pretty relaxed...and it wasn't very stressful". He attributed his low stress level to learning "how to manage my time alot better" over the course of his academic career. Reflecting on what was different between his undergraduate and graduate years at university, G commented on his current experience:

> ...you have alot more freedom and I feel you're respected alot more by the professors in the department in that they're much more, at least it's my perception that they're more approachable at this point. More one on one I just feel more comfortable with what I'm doing now then when I was an undergraduate.

G works as a teaching assistant in an exercise physiology course doing lab demonstrations and marking papers. He reported that he "enjoyed it and ...it wasn't really too difficult" and that it added an additional "seven or eight hours a week" to his workload. On occasion he was also asked to give a lecture, which he reported as enjoyable and which gave him more responsibility. He did comment on the fact that preparing lectures demanded more of his time, which in a way added to the stress in his life.

> ...the act of presenting that's not,...stressful for me. Possibly just the fact that it is taking up time and other things have to be juggled around to make up for it and I suppose that in a sense that would increase the stress.

In reference to situational stress, G reported that at the time he filled out the questionnaire his living situation was slightly stressful. He was living with his sister and since they had different schedules, he felt the need to be very quiet at night when she went to bed early. Since that time G stated that he had moved into a room in a house with five other students. He reports that the new room is closer to campus and "financially speaking ...saving $50 a month".

In terms of symptoms of stress, G discussed a knee injury as being stressful because it prevented him from running.

> ...as strange as that may seem that has been quite

> stressful. Just the fact that I can't do what I enjoy doing. And I'd like to run a marathon this spring and every week that you can't run, it's that much tougher to prepare.

G further reports that he has a "fairly healthy lifestyle", eats well and exercises frequently.

> ...I'd run probably...50 km a week or 60 km a week...And I also work out in the weight room here. Probably five days a week as well.

G stated that the experience of waiting for the results of his Christmas exams was stressful because he was worried about a passing mark in one course which he needed to convocate.

> ...as far as schooling goes, there's always the stress when you're close to being completed....if you don't get a certain mark then it doesn't count towards our degree...that has caused alot of stress.

In terms of leisure activities, G talked of spending weekends with his girlfriend, going to the movies or out for dinner, and visiting her relatives. He said he watched less than one hour of TV each week and preferred to read sports magazines. G further described spending time with a few friends, who were also graduate students "...to get together and do something more leisurely then just worrying about our academic stuff", included in this 'stuff' was a weekly hockey game.

When asked what he did to control the level of stress in his life, G indicated a number of things which included having a support system, exercising and talking to people.

> ...I think friendships are very important....a good support system and people that you can talk to...because that's ultimately a good way to control stress and you certainly need somebody to talk to and keep that ...touching reality kind of thing...being able to communicate with other people...it seems to help alot...I know there's times when you do feel on edge kind of thing and just talking to people does make a big difference...that's probably the way I cope with stress.

When asked if he missed his immediate family, he expressed that he had many ties and commitments in Kingston.

> ...in the course of six years, I've kind of established myself in the community. I'm involved in...as a coach in hockey and football, and different things. I met a lot of people here so I do consider this my home in a lot of ways.

Otherwise G reported that he went home for "all the major holidays and in the summer" and remained close to his family.

In terms of having someone to turn to in a time of need, G had difficulty with his reply.

> I think it would be a toss-up between my girlfriend and also my mom. My mom and I are quite close and we seem to be getting closer the older I get and I respect, I really respect my mom. And my girlfriend too who's very, very supportive.

When asked if his choice of support would change with the type of problem (ie. personal or academic), G stated that for academic concerns he would turn to his girlfriend, his supervisor or the chairman of his department. He identified five or six friends from his undergraduate days who he would feel comfortable talking to regarding personal problems.

In summarizing his thoughts on life as a graduate student G said:

> ...a big key...is that if you're happy doing what ever it is that you're doing. Chances are you are not going to be as stressed about the situation...nothing is worth your health...I think that graduate school can be whatever you make it. It could be a horrifying experience, it could be an awful stressful experience...but at the same time it can be a really really good experience...if you take one day at a time and just enjoy what it is you are doing, be truthful with yourself, I think things work out for the better and I don't think people would be that stressed out about it.

Common Themes

In discussing the common themes which emerged from the 12 interviews, it is important to note that the questions directed to the subjects were contrived from the topic areas outlined in the interview guide. With this in mind, the reader should be aware that all subjects were asked common questions. However, these questions were not consistent in wording nor were they entered into the discussion at the same time, or in a similar format, for each interview. Consequently, a common theme was not directly solicited from a question but was identified from the analysis of similar responses. For example, subjects were asked to discuss situational stress in their lives as opposed to being asked to discuss "time pressures", which later emerged as a theme.

Time as a Specific Stressor

Consistent across the sexes and the departments, for those interviewed, was the issue of time or lack of time to get everything done.

> Not having time to get things done, I think applies to everybody who's in masters courses. Not enough time for yourself and things like that. (single male, Ed.)

Students referred to the amount of work they had to do and the time they had to do it in. They also referred to the extra time required by their assistantships and the limited time they had to socialize or be by themselves.

From someone whose spouse is also a graduate student:

> ...not enough time for (spouse), not enough time to get things done, not enough time for the two of us,...Our joke is next August (married female, MBA)

Time Management Strategies

Students spoke about the strategies they had employed to deal with the problem of "not enough time". For some it seemed to be a matter of concentrating on one thing at a time, breaking things down into small manageable tasks, establishing goals and sub-goals, and giving themselves rewards when sub-goals were met.

> ...all I do is adjust the deadline so it's easier to do...I treat everything like little projects, as opposed to one big non-ending continuous stream of work to be done...everything gets broken down, and then it's manageable...things are prioritized too...some things are more critical too. (single male, Psych.)

> ...what I feel is that I organize my time... and I also set mini-goals. I try to divide everything up into sub-goals...time goes by and eventually after setting all the sub-goals you're finished what seemed like a very large task because you've used your sub-goals along the way, the task is done. (single male, Ed.)

In other cases, it appeared that the strategy used to manage time and the stress of graduate school was to adopt a more "easy-going" perspective. This also entailed looking at things in a different light.

> ...I've had to change what I think is important to me as a person which usually is being organized and I'm kind of proud of myself on, you know, having things done ahead of schedule, and you just have to learn that's just not going to happen... (married female, MBA)

> ...if it's not going to kill you why worry about it...the way I look at it, things will get done somehow, so why get excited about it...I'll set my own pace...few things prove to be fatal, so why worry. (single male, Bio.)

Leisure Activities As Coping Mechanisms

A variety of responses were given for what one did for leisure to alleviate stress. While some subjects referred to as exercise and social activities, others clearly stated that they did these activities to reduce stress, to get a different perspective, and to leave academics behind. Most of the activities included a strong social component and involved doing things with other people, usually other students.

> I enjoy cycling, cross-country skiing, camping, outdoor stuff like that...I go to movies now and then and to dinner with friends from the lab, go to the Grad Club regularly every Friday...(single male, Bio.)

> ...watch a movie...or I'll go shopping or I'll exercise...doing things that are outside the stress. (single male, Ed.)

> Tuesday night we go out and do Pizza. This is always people from the school. Friday afternoon we go to the Grad Club and drink....I constantly read novels because that takes me away from whatever it is I'm doing...music, guitar...playing guitar is usually rewarding, it calms me down... (single male, Psych.)

> ...for me a good way to release tension is going to fitness classes or exercising... (married female, MBA)

Reflections on Being a Graduate Student

The uniqueness of the experience of being a graduate student is most evident in the subjects' reflections. Although there was a tendency to consider graduate school as an artificial place, the description which subjects gave, differed immensely.

Graduate school was viewed as being fun, a pleasurable experience. It was also described as an isolating experience and even an unrewarding experience. It was likened to being in an incubator, living in Utopia and driving a fast car in a video game. In essence, as one subject put it, "it's whatever you make it".

> I wish there was a way that graduate school could be made more rewarding...personally rewarding, not financially, necessarily...it seem's that really we are expected to produce an awful lot and expected to feel grateful for the opportunity...right now I don't feel in the least bit grateful. I just want to get out of here...(single female, Bio.)

> ...orientation process...been kind of dehumanized ...brought down to this very base level, and you do these somewhat ridiculous stunts in front of your peers, and then suddenly you're part of the group, and it's kind of like an indoctrination procedure, ,...then you live in this kind of incubator with these people for two years until you emerge and you're set free and all these security blankets are suddenly stripped from you... (married female, MBA)

Future Outlook as Professionals

As with the subjects highlighted in the case studies the remaining subjects predicted that their future professional lives would be equally as stressful as their lives as graduate students. According to most subjects, there will be additional stress from a different set of stressors in the future. Stress from a change in environment, stress from the real world, stress from uncertainty, and strangely enough, stress from accomplishing what you had set out to do were all viewed as future stressors.

> I think it might be less than what it is now. Things that could cause me stress will be less. (single male, Ed.)
>
> If I got the ideal job, I'll probably enjoy it. I don't know if the stress level will change with respect to work or not. (single male, Bio.)
>
> ...not because the real world scares me as much as that I've actually accomplished this thing that appeared to be so out of my grasp, now I have it, it's like ...wow! It's really, it will be very strange. Yeh. (single male, Psych.)
>
> ...I guess the coming year is going to be very stressful and the fact that both of us will be starting new jobs, we're moving to a city that has no vacancies...not surrounded by people you know and love...Especially, moving out of the environment at Queen's, I think it's very insulated from the rest of the world...(married female, MBA)
>
> In some ways there's going to be a lot more stress...same kind of working hours, the same kind of working conditions...it's going to be rough and the only reason I can go through with it is because I know it's short term...hope to get some publications out of it... There's always the other problem of not being able to find a job once you've got your post-doc...you go through university and then you strive for your professorial and you strive for grants and then you strive for tenure and you retire and two years later you die. (single female, Bio.)

Summary

In summary, the interviews were conducted to gather information depicting graduate students' lifestyles and experience of stress. Areas discussed included situational stress, symptoms of stress, exercise, nutrition, leisure activities, social support and coping mechanisms. Apparent in the discussions was that even though there were similarities in the experiences of those within the same department, the individuals reported unique experiences when discussing the aforementioned topics.

With reference to social support, the graduate students interviewed highlighted all three types of support put forth by Lazarus et al.. All subjects mentioned emotional support in the form of talking to classmates, friends, lovers and family, or emphasized that just being with others was supportive. Tangible support was highlighted by the single mother in the form of babysitting and housekeeping services from her family. Informational support was provided by academic supervisors and professors.

Coping strategies employed by the interviewees were also consistent with those in the literature, particularly the strategies outlined by Meichenbaum. Time management techniques were discussed as methods to control the situation before the problems arises (active coping), discussions with classmates and "talking" were used to alter the meaning of a situation after it occurred, and various leisure activities were employed to control the stress after it had emerged (avoidance coping). Further, in support of Meichenbaum's thesis humour and social support were highlighted as important factors in stress reduction.

VI. DISCUSSION AND CONCLUSION

A. Discussion of Quantitative Findings

The results of the present study indicate that graduate students exhibit stress levels (situational and symptoms) that were average when compared to the normative sample on the SAQ. T-scores for the total sample were at the mid range and above 45, which is the recommended maximum.

However, the fact that the SAQ was normed on a group of "normals" and patients of a stress clinic, both from a large urban area in the northeastern United States, whereas the data for this study was collected in a small Canadian city, makes it difficult to evaluate the sample through comparison to the norm.

It would seem that graduate students function with a level of stress that is slightly below a problematic level. This level may in fact be a functional level akin to Selye's eustress. Perhaps, it is a motivating level of stress for some. Yet, it could be a mistake to underestimate the significance and/or implications of this level of stress, particularly in light of those who are at the upper end of the scale. On an individual basis, there are students who presented high risk profiles, which suggests that they are experiencing extreme stress.

When compared to the normed population, totals on the physical exercise evaluation and the nutrition evaluation revealed percentile scores of slightly above 70 for the total population on both scales. Therefore, based on Adams' instruments, it would seem that the nutritional and exercise habits of the graduate students studied are more than adequate.

Subjects from the department of English on average, scored significantly higher on the situational scale than those from the departments of Biology, Education, MBA and Psychology. The small sample size (nine) may have a bearing on this result, especially when one subject revealed through an interview that she was a full-time doctoral student and a single mother of three sons, who exhibited high levels of stress. Thus, with a small sample size, it could be possible for the extreme score of one subject to elevate the group mean. However, the standard deviation of the situation scores of the English department was low relative to other departments. This indicates that as a group, students in the department of English had similar situation scores and that extreme scores were not the cause for the high mean value.

Significant departmental differences were also found on the variable exercise, with subjects from the department of Physical Education reporting the highest scores. This is an expected finding in that these students are fully aware of the benefits of exercise and have ample opportunity and indeed are required to participate in physical activities as part of their curriculum. They also have the benefit of being in close proximity to the athletic facilities. However, the difference was only significant between the departments of Physical Education and English. Although Physical Education had the second smallest sample size (12), the standard deviation on the variable exercise was small which indicates that the mean was not influenced by extreme individual scores. These results would also imply that the other departments exercise regularly since their mean scores were not significantly different from those in the Physical Education department.

Departmental differences were found in age with subjects from the department of Education being significantly older than those from all other departments while subjects from the department of Physical Education were significantly younger than those of all other departments except English. The standard deviation of age for the Education subjects was larger than any other group while that of the Physical Education subjects was extremely low due to a reported age range of 22-25 years.

Subjects from the Physical Education department were also found to have significantly fewer years of post secondary education when compared to subjects from Biology, MBA and Psychology. Once again the standard deviation for the Physical Education department was very low and a portion of the difference can be attributed to the fact that there is no doctoral program in Physical Education at Queen's.

The aforementioned departmental differences are consistent with the findings of Archer and Peters (1986) and Heins, Fahey and Leiden (1984) reported in Chapter II. Heins et al. reported that students from the departments of medicine, law, psychology and chemistry had varying prime concerns regarding their academic experiences.

Differences between the sexes were found to be significant on the nutrition scale. Females scored higher and reported better nutritional habits than males. There were also differences between the sexes on the symptoms scale, with females scoring higher. However, these differences were only significant at the .08 level as opposed to the more conservative limit of .05. It is difficult to say whether females actually have better nutrition and more symptoms or whether they are just more open to reporting these incidents. Nevertheless, these differences, are consistent with the findings of Carter and Norris (1984); Smith et al.(1985); Stansbury (1986) and Van Rooijen (1986) as highlighted in Chapter II. More specifically that females report higher levels of stress than males, were more likely to have personal and emotional problems, take longer to complete graduate school and are more prone to quit graduate school due to personal problems.

Similarly, differences based upon family status are consistent with the literature of Coombs and Fawzy, 1982 and Musser and Lloyd, 1985. Their findings indicated that single subjects exhibit higher levels of stress than married subjects. The current research found single subjects to exhibit significantly higher scores on the symptom scale. Results on the vulnerability and nutrition scales were only significant at the .052 and .095 levels respectively. In essence the single subjects in this study had poorer nutritional and lifestyle habits when compared to those living as couples. These habits included getting less than eight hours of sleep a night, drinking too much caffeine and alcohol, having fewer social supports and exhibiting more physical symptoms such as headaches, colds, frustration, depression and memory loss. There was a further significant difference on the variable age, with those living as couples being older than those who were living as singles.

The current findings are consistent with the findings of Katz and Hartnett (1976) who indicate that loneliness and a lack of a relationship with a significant other are common concerns among single graduate students. Thus, in spite of the literature citing additional stressors in the lives of married graduate students, it is apparent that the single graduate students in this study are reporting more stress than their counterparts who live as couples. In a sense, singleness can create stress through a lack of support and may consequently leave one more vulnerable to the effects of stress. Reflecting on Hales and Williams (1986) findings reported in Chapter II, it is those with a friend of the opposite sex who are healthiest of all!

In reference to the analysis done on the other subgroups, there were no relevant significant differences found when the data was grouped by degree, years of education, year in program, and thesis.

There were a number of significant correlations reported in Chapter IV. Of interest, are the significant positive correlations between situational past and future (.872), symptom past and future (.914), and situational and symptom (.801). These results suggest that if subjects receive a high situational score they will score high on the symptoms scale and also that high past scores correlate with high future scores. This seems to support the premise that graduate students tend to experience anticipatory stress or that they worry about things that are yet to come. The results may also reflect that the questionnaires were completed in November, and that future scores might not be expected to decrease until after the term of study ends. In essence graduate students were not expecting a change in their current stress levels over the next six months.

Other significant, but weaker, correlations are the positive relationship between age and nutrition (.221) which suggests that nutrition improves with increasing age. Negative correlations between nutrition and vulnerability (-.515) and symptoms (-.222) suggest that low nutrition scores will be associated with high vulnerability and symptoms scores.

These results also suggest that correlations on the situational (.394) and symptom (.409) scales are positively related to high scores on the vulnerability scale. The vulnerability scale is most closely related to one's overall lifestyle. Therefore, these results indicate that a high vulnerability which reflects poor living habits, is related to high stress scores. The vulnerability scale considers factors such as; having eight hours of sleep a night, having one close family member within 50 miles, eating three square meals a day, smoking, and drinking excessive amounts of alcohol or caffeine.

These results are supported by Goplerud (1986) who identifies graduate school as a time of high risk. Further, these results support the findings of Lieberman (1982) and Wills and Langner (1980), who suggest that the lack of social support can be a source of stress, and to Hales and Williams (1986) findings, who emphasize the need for proper nutrition during stressful times.

B. Discussion of Qualitative Findings

The qualitative data were presented in a case study format to emphasize the total picture of individual graduate student's experiences. Common areas discussed in the interviews were situational stress, symptoms of stress, exercise, nutrition, social support, coping strategies, leisure activities, future stress, and reflections or a summary of their experience. In spite of the uniqueness of the students' experiences, there were some common trends in their responses.

Finances and school work were most often cited as sources of stress, followed by environment, family deaths, lack of a personal relationship, family, personal injury, job hunting, body image and situations with office or lab mates. Common symptoms reported by the subjects included: panic attacks, headaches, fatigue, indecisiveness, difficulty sleeping, self-consciousness, nervousness, loneliness, and frustration. Many of these findings such as financial difficulties, not enough time, lack of relationships, frustration and fatigue are consistent with those findings described by Arnold, et al. (1983); Bjorksten et al., (1983) and Goodman, et al. (1984) as discussed in Chapter II.

Social Support

In terms of support people, subjects most often turned to friends or alternatively fellow students. Other support people cited were: professor or supervisor, spouse, girlfriend or boyfriend, parent, sibling, office mates and room-mates. As mentioned in Chapter V, and in support of the literature, social support was identified by subjects as having a valuable influence on their emotional well-being. Two subjects stated that they could not overestimate the value of having friends and someone with whom to talk.

Gender Differences and Marital Status

Consistent with the literature, females cited difficulty in juggling their position as graduate students and their personal lives. (Adler, 1976; and Stansbury, 1986) This was of particular concern to a single mother with three children and to a single doctoral student planning to do post-doctoral work. By the same token, the two married female subjects spoke of the burden of household chores coupled with academic commitments. Although both women reported that their husbands helped, they were the prime house keepers.

It would seem that marital status plays a role in influencing the type of experience that one has at graduate school. Both married subjects had spouses who were also full time graduate students. Apart from the obvious support they received from their spouses, these subjects mentioned that they found it easier to be a student when their spouse was also a student. The primary reason was that there was no pressure to socialize, which made it easier to do schoolwork. (Of note is the fact that both these spouses were in highly demanding professional programs, MBA and Law.)

In contrast, single students reported that not having a relationship was very stressful and that relationships were something they wanted in their lives. Many others have referred to the desire of graduate students to have a romantic relationship (Clark & Reiker, 1986; Heins et al., 1984 and Mallinckrodt, et al., 1985). One subject, with a boyfriend was concerned about still being single at the age of 30, while the divorced subject stated she would like to have a relationship in the future.

Exercise

In reference to exercise, even those who did not report doing a great deal of exercise recognized its value and were aware that they should do it more frequently. Similar findings were reported by Bialeschki and Henderson (1986). Those who participated in moderate amounts of exercise seemed to do so for pleasure. Those who exercised frequently, four or more times a week, recognized the benefits of exercise and referred to its moderating effect on their stress level.

Perception and Future Outlook on Stress

Finally, in terms of subjects' perceptions of their stress levels, most were able to accurately predict their own level. Of interest, was the fact that subjects had difficulty comparing themselves to their colleagues and seemed reluctant to do so. On the other hand, subjects freely commented on their perception of how the stress in their lives would change in the future. Generally, most subjects felt the stress in their lives would increase in the future when they "got into the real world".

C. Implications for Future Research

In light of the recognized value of the SAQ, as outlined in Chapter II, there is a need for the development of regional and local norms for the SAQ as recommended by Miller et al.. Extensive use of the instrument with many and varied populations is necessary to achieve this objective. The availability of local norms, for studies such as the current one, will allow for a more accurate interpretation of results.

Also recognized was the role that social support played in buffering the negative effects of stress. Yet, the findings of de Rosenroll et al. (1987) indicated that there were only three formal social support programs in action, in the 24 Canadian universities surveyed. These findings emerge even though, eight studies have referred to the increased need for social support amongst graduate students. Further studies are needed to investigate, perhaps in a qualitative manner, the kind of support that graduate students feel would be valuable. One possibility might be to have support programs initiated by the graduate department but perpetuated by the students themselves. Without implementing a complex or costly program, methods could be established to "bring people together" early in their graduate program.

A more thorough attempt to examine program specific stressors among graduate students is needed. Utilizing a large, representative sample of graduate students and qualitative research methods, a more exacting picture of program specific stressors and individual responses would be gathered. The current study has only begun what could be a fruitful investigation into the stressors relevant to graduate students.

Summary

In summary, the results indicated that the subjects in this study exhibited scores on the Stress Audit Questionnaire that were average when compared to the normative sample. Secondly, subjects exhibited physical exercise and nutrition scores that were in the 70th percentile when compared to the normative sample. The quantitative results further indicated that there were relevant significant differences between the departments, between the sexes, and between singles and couples. Significant positive correlations were found between vulnerability and both situation and symptom scales, between age and nutrition, as well as between situation and symptom. Significant negative correlations were found between nutrition and both vulnerability and symptom. Past and future scores were also significantly, positively correlated for both situation and symptom.

The qualitative results revealed experiences which were individually unique and at the same time contained similarities. Common issues related to time as a specific stressor, time management strategies, leisure activities as coping strategies, reflections on being a graduate student and future outlook on the professional environment. Finances and schoolwork were deemed most stressful, while panic attacks, headaches and fatigue were most commonly cited as symptoms of stress. Support was considered very important by the subjects and usually came from friends first, then other students. As a final note, subjects were generally able to accurately predict their own stress levels.

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APPENDIX A

Dear Graduate Student:

I am a doctoral student in the Department of Educational Psychology at the University of Alberta. I am currently conducting my dissertation research in the area of Graduate Student Stress. As a fellow Graduate Student I recognize the value of identifying and understanding more about the stress which Graduate Students may experience.

Your help would be greatly appreciated. If you are interested in completing a questionnaire (it takes 30-45 minutes), please indicate below and provide your name so that I may address a questionnaire to you. Please note that you will not have to put your name on the actual questionnaire. If you agree to participate, a questionnaire will be delivered to you through your department mail.

Please return this form as soon as possible to Mary Walker in the graduate office.

Yes I would like to participate, my name is ________________

Thank you

Patti Hames-Sheehy

APPENDIX B

This questionnaire consists of
- Stress Audit Booklet
- Exercise Evaluation
- Nutrition Evaluation

Please answer the following:

Program ______________________________ Year of program __

Thesis ___ yes ___no; yrs of post secondary education ____

Are you interested in taking part in a follow-up interview?

____ yes ____ no; If yes, please complete the next line;

Name _________________________________ Phone # _____________

To interpret your Stress Audit Profile, you can detach the last page of your booklet and follow the directions given there.

Questionnaires will be picked up in this class ______________

If you have any further questions please do not hesitate to call me at 544-4911.

Patti Hames-Sheehy

NOTE: DUE TO COPYRIGHT RESTRICTIONS THE QUESTIONNAIRE IS NOT INCLUDED HERE.

APPENDIX C TABLE 2

Demographic Summary

Sex Male = 50 Female = 64 No reply = 3

Marital Status Married = 30 Single = 70 Divorced = 5
Widowed = 1 Cohab = 4 No reply = 7

Degree Masters = 90 PhD = 25 No reply = 2

Department Biology = 18 Education = 21 English = 9
MBA = 32 Phys Ed = 12 Psych = 24
No reply= 1

Age (N=103) minimum = 22 maximum = 48 average = 28.3

program year	1	2	3	4	5
# students	67	36	10	2	1

yrs education	4	5	6	7	89+
# students	25	33	24	17	39

# children	0	1	2	3	45
# students	103	4	5	3	20

# Dr. visits (prev 6 mos)	0	1	2	3	456+
# students	42	32	16	11	337

# days in hospital	0	1	2
# students (6 mos/5 years)	116/92	1/21	0/4

Any consultations with mental health professional within the last 6 months: No answer=12 No=99 Yes=6

If yes, # of visits	1	2	11	20
# students	1	3	1	1

Income level	NA	1	2	3	456
# students	18	51	31	5	092

where level 1 = under $10,000
2 = $10 - 15,000
3 = $15 - 20,000
4 = $20 - 30,000
5 = $30 - 50,000
6 = over $50,000

APPENDIX D

INTERVIEW GUIDELINE

- Issue of confidentiality explained. Permission granted to use excerpts of conversation in thesis.
- Background information - before graduate student
    - lifestyle etc.
- Questionnaire - perceptions
    - situations
    - symptoms
- Coping - alleviating stress

- Social Support - importance of
- Future and relationship to stress - when you finish graduate school.
- Meaning of stress
- Perception of stress
- Thesis
- Further comments

APPENDIX E TABLE 3

Descriptive Statistics: Total Sample

Categorical Variables (N=117)

Sex	Male = 50	Female = 64	No reply = 3
Marital Status	Married = 30 Widowed = 1	Single = 70 Cohab = 4	Divorced = 5 No reply = 7
Degree	Masters = 90	PhD = 25	No reply = 2
Department	Biology = 18 MBA = 32 No reply= 1	Education = 21 Phys Ed = 12	English = 9 Psych = 24
Thesis	Yes = 65	No = 52	

Continuous Variables

	N	Minimum	Maximum	MeanStd Dev
Age	103	22	48	28.35.7
Yrs education	114	2	10	5.61.6
Yr of program	116	1	5	1.60.8
Exercise	116	0	12	4.92.8
Nutrition	115	13	88	39.89.7
Vulnerability	117	24	79	44.2 10.5
Situation	117	23	518	199.9 118.9
Symptoms	117	2	362	98.1 74.5

APPENDIX E TABLE 4

Descriptive Statistics By Sex

Categorical Variables (N=114)

Sex:	Male = 50	Female = 64	No reply = 3
Degree:	Male Female	Masters = 42 Masters = 46	PhD = 7 PhD = 18
Thesis:	Male Female	Yes = 21 Yes = 42	No = 29 No = 22
Status: Male	Married = 13 Widowed = 0	Single = 33 Cohab = 2	Divorced = 0 No reply = 2
Status: Female	Married = 17 Widowed = 1	Single = 37 Cohab = 2	Divorced = 5 No reply = 2
Department: Male	Biology = 9 MBA = 22	Education = 8 Phys Ed = 3	English = 3 Psych = 5
Department: Female	Biology = 8 MBA = 10	Education = 13 Phys Ed = 9	English = 6 Psych = 18

Continuous Variables (M = male, F = female)

		N	Minimum	Maximum	Mean	Std Dev
Age	M	44	22	47	28.7	5.5
	F	59	22	48	28.0	5.9
Years of education	M	50	3	9	5.7	1.4
	F	62	4	10	5.7	1.7
Year of program	M	50	1	5	1.7	0.9
	F	64	1	4	1.4	0.7
Exercise	M	49	1	12	4.9	3.1
	F	64	0	12	4.8	2.6
Nutrition	M	48	13	52	37.5	8.8
	F	64	21	88	41.7	10.0
Vulner-ability	M	50	24	79	45.6	12.0
	F	64	24	66	43.2	9.4
Situation	M	50	23	518	187.2	111.7
	F	64	49	502	212.7	124.3
Symptoms	M	50	2	297	85.6	69.8
	F	64	6	362	110.3	77.4

APPENDIX E TABLE 5

Descriptive Statistics By Age

Categorical Variables (N=102 with median age = 26)
(Group Y < 27 years and Group O > 26 years)

Sex:	Group Y	Male = 22	Female = 33
	Group O	Male = 22	Female = 26
Degree:	Group Y	Masters = 45	PhD = 9
	Group O	Masters = 35	PhD = 13
Thesis:	Group Y	Yes = 32	No = 23
	Group O	Yes = 26	No = 22
Status:	Married = 9	Single = 42	Divorced = 0
Group Y	Widowed = 0	Cohab = 3	No reply = 1
Status:	Married = 19	Single = 24	Divorced = 3
Group O	Widowed = 1	Cohab = 1	No reply = 0
Department:	Biology = 7	Education = 2	English = 7
Group Y	MBA = 15	Phys Ed = 11	Psych = 13
Department:	Biology = 8	Education = 16	English = 1
Group O	MBA = 14	Phys Ed = 0	Psych = 9

Continuous Variables

		N	Minimum	Maximum	MeanStd Dev
Age	Y	55	22	26	24.41.2
	O	47	27	48	32.85.6
Years of education	Y	55	3	8	5.21.1
	O	47	3	10	6.31.8
Year of program	Y	55	1	3	2.40.6
	O	48	1	5	1.81.0
Exercise	Y	54	1	12	5.02.9
	O	48	0	12	4.62.7
Nutrition	Y	53	24	55	39.37.4
	O	48	21	88	40.2 10.8
Vulner-ability	Y	55	28	69	44.09.9
	O	48	24	79	44.49.6
Situation	Y	55	40	498	203.9 114.2
	O	48	23	518	196.2 122.7
Symptoms	Y	55	2	297	102.9 69.8
	O	48	2	362	92.7 75.9

APPENDIX E TABLE 6

Descriptive Statistics By Family Status

Categorical Variables (N=110)
(Group S = single, Group C = couple)

Status: Group S Single = 70 Divorced = 5Widowed = 1
Group C Cohab = 4 Married = 30

Sex: Group S Male = 33 Female = 43
Group C Male = 15 Female = 19

Degree: Group S Masters = 59 PhD = 16
Group C Masters = 26 PhD = 8

Thesis: Group S Yes = 43 No = 33
Group C Yes = 18 No = 16

Department: Group S Biology = 11 Education = 10 English = 7
MBA = 22 Phys Ed = 11 Psych = 15

Department: Group C Biology = 6 Education = 10 English = 2
MBA = 9 Phys Ed = 0 Psych = 7

Continuous Variables

		N	Minimum	Maximum	Mean	Std Dev
Age	S	70	22	48	27.3	5.0
	C	32	22	47	30.6	6.6
Years of education	S	75	3	10	5.7	1.7
	C	33	3	9	5.7	1.4
Year of program	S	76	1	5	1.6	0.8
	C	34	1	3	1.6	0.7
Exercise	S	75	0	12	4.9	2.8
	C	34	1	10	4.2	2.3
Nutrition	S	74	13	57	38.5	8.8
	C	34	23	88	41.8	11.1
Vulnerability	S	76	24	77	45.7	10.2
	C	34	24	79	41.5	10.8
Situation	S	76	40	515	211.0	120.2
	C	34	23	518	185.0	121.1
Symptoms	S	76	5	362	110.2	79.6
	C	34	2	244	78.3	62.0

APPENDIX E TABLE 7

Descriptive Statistics By Years of Education

Categorical Variables (N=114 with median = 5 years)
(Group F < 6 years and Group L > 5 years)

Yrs of Ed	Group F = 61	Group L = 53	
Sex:	Group F	Male = 24	Female = 35
	Group L	Male = 26	Female = 27
Degree:	Group F	Masters = 59	PhD = 2
	Group L	Masters = 30	PhD = 22
Thesis:	Group F	Yes = 33	No = 28
	Group L	Yes = 31	No = 22
Status: Group F	Married = 17 Widowed = 1	Single = 34 Cohab = 1	Divorced = 3 No reply =5
Status: Group L	Married = 12 Widowed = 0	Single = 35 Cohab = 3	Divorced = 2 No reply = 1
Department: Group F	Biology = 3 MBA = 13	Education = 15 Phys Ed = 11	English = 6 Psych = 13
Department: Group L	Biology = 15 MBA = 18	Education = 6 Phys Ed = 1	English = 3 Psych = 10

Continuous Variables

		N	Minimum	Maximum	Mean	Std Dev
Age	F	53	22	48	27.8	6.6
	L	49	23	46	28.8	4.6
Year of Program	F	61	1	3	1.2	0.5
	L	53	1	5	2.0	0.9
Exercise	F	61	1	12	4.8	2.8
	L	52	1	12	4.9	2.7
Nutrition	F	60	13	88	40.7	11.0
	L	52	24	57	39.5	7.8
Vulnerability	F	61	24	59	43.8	11.1
	L	53	24	73	44.4	10.1
Situation	F	61	23	518	215.0	130.9
	L	53	49	502	185.2	105.3
Symptoms	F	61	2	297	99.7	78.2
	L	53	5	362	97.1	72.4

APPENDIX E TABLE 8

Descriptive Statistics By Degree

Categorical Variables (N=115)

Degree: Masters = 90 PhD = 25

Sex: Masters Male = 42 Female = 46
PhD Male = 7 Female = 18

Thesis: Masters Yes = 39 No = 51
PhD Yes = 25 No = 0

Status: Married = 24 Single = 55 Divorced = 3
Masters Widowed = 1 Cohab = 2 No reply = 5

Status: Married = 6 Single = 14 Divorced = 2
PhD Widowed = 0 Cohab = 2 No reply = 1

Department: Biology = 7 Education = 21 English = 6
Masters MBA = 32 Phys Ed = 12 Psych = 12

Department: Biology = 10 Education = 0 English = 3
PhD MBA = 0 Phys Ed = 0 Psych = 12

Continuous Variables (M = Masters, P = PhD)

		N	Minimum	Maximum	Mean	Std Dev
Age	M	80	22	48	28.2	6.1
	P	22	24	38	28.9	4.3
Years of education	M	89	2	10	5.2	1.3
	P	24	5	10	7.3	1.5
Year of program	M	90	1	5	1.5	0.7
	P	25	1	4	1.8	1.0
Exercise	M	89	1	12	4.9	2.7
	P	25	0	12	4.4	2.9
Nutrition	M	88	13	88	39.9	9.8
	P	25	21	57	40.4	9.6
Vulnerability	M	90	24	79	44.0	10.7
	P	25	24	73	44.8	10.5
Situation	M	90	23	518	206.3	124.7
	P	25	70	408	181.4	99.5
Symptoms	M	90	2	362	98.8	77.4
	P	25	24	283	97.9	67.4

APPENDIX E TABLE 9

Descriptive Statistics By Department

Categorical Variables (N=116)

	Department					
	#1	#2	#3	#4	#5	#6
Sex:						
Male	9	8	3	22	3	5
Female	8	13	6	10	9	18
Degree:						
Masters	7	21	6	32	12	12
PhD	10	0	3	0	0	12
Thesis:						
Yes	18	11	5	0	8	23
No	0	10	4	32	4	1
Marital Status:						
Married	4	10	1	9	0	6
Single	10	6	6	22	11	15
Divorced	1	3	1	0	0	0
Widowed	0	1	0	0	0	0
Cohabitating	2	0	1	0	0	1

Department Legend:		
	#1 Biology	#4 MBA
	#2 Education	#5 Phys Ed
	#3 English	#6 Psychology

TABLE 9 (continued)

Continuous Variables	Dept	N	Minimum	Maximum	Mean	Std Dev
Age	1	15	23	37	27.8	3.6
	2	18	26	48	35.4	7.3
	3	8	22	36	25.3	4.6
	4	29	23	38	27.6	3.8
	5	11	22	25	23.5	0.8
	6	22	22	38	27.3	4.5
Years of education	1	18	2	9	6.7	1.7
	2	21	4	7	5.2	1.0
	3	9	4	10	5.4	1.9
	4	31	3	10	5.7	1.6
	5	12	4	6	4.6	0.7
	6	23	4	10	5.9	1.7
Year of program	1	18	1	4	2.3	0.9
	2	21	1	5	1.7	1.0
	3	9	1	1	1.0	0.0
	4	32	1	2	1.7	0.5
	5	12	1	2	1.1	0.3
	6	24	1	4	1.3	0.7
Exercise	1	18	2	10	4.4	2.2
	2	21	1	12	4.0	2.9
	3	9	1	6	3.4	1.7
	4	31	1	11	4.7	2.7
	5	12	3	12	7.4	2.9
	6	24	0	12	4.5	2.9
Nutrition	1	17	25	57	41.3	10.2
	2	21	29	56	40.8	8.2
	3	9	13	48	36.1	11.8
	4	31	23	52	38.7	7.7
	5	12	32	51	40.8	7.1
	6	24	21	88	40.6	13.3
Vulnerability	1	18	33	73	44.9	10.4
	2	21	24	79	42.2	12.0
	3	9	29	77	50.3	14.4
	4	32	32	69	45.1	9.0
	5	12	24	58	43.2	11.0
	6	24	24	60	42.3	9.3
Situation	1	18	42	386	181.9	93.2
	2	21	23	518	189.1	129.3
	3	9	211	515	331.1	96.6
	4	32	57	502	184.9	94.7
	5	12	40	494	234.6	140.7
	6	24	49	498	180.1	129.6
Symptoms	1	18	8	283	108.6	81.6
	2	21	2	226	85.6	63.4
	3	9	113	297	161.6	61.3
	4	32	5	362	81.6	74.6
	5	12	39	297	116.2	80.4
	6	24	25	295	92.4	72.0

APPENDIX E TABLE 10

Descriptive Statistics By Program Year

Categorical Variables (N=116)
(Group R = first year and Group V = subsequent years)

Program yr: Group R = 67 Group V = 49

Sex: Group R Male = 23 Female = 43
Group V Male = 27 Female = 21

Degree: Group R Masters = 53 PhD = 14
Group V Masters = 37 PhD = 11

Thesis: Group R Yes = 43 No = 24
Group V Yes = 22 No = 27

Status: Married = 17 Single = 41 Divorced = 3
Group R Widowed = 1 Cohab = 2 No reply = 3

Status: Married = 13 Single = 29 Divorced = 2
Group V Widowed = 0 Cohab = 2 No reply = 3

Department: Biology = 4 Education = 12 English = 9
Group R MBA = 11 Phys Ed = 11 Psych = 20

Department: Biology = 14 Education = 9 English = 0
Group V MBA = 21 Phys Ed = 1 Psych = 4

Continuous Variables

		N	Minimum	Maximum	Mean	Std Dev
Age	R	60	22	48	27.4	5.5
	V	43	23	47	29.5	5.9
Years of education	R	66	3	10	5.2	1.4
	V	48	2	10	6.3	1.6
Exercise	R	67	0	12	4.7	2.8
	V	48	1	12	5.1	2.8
Nutrition	R	66	13	88	40.1	10.8
	V	48	23	56	39.7	8.3
Vulner-ability	R	67	24	79	44.1	10.7
	V	49	24	73	44.3	10.4
Situation	R	67	70	518	214.9	134.9
	V	49	23	425	181.2	91.4
Symptoms	R	67	6	362	104.6	82.9
	V	49	2	260	90.2	61.7

APPENDIX E TABLE 11

Descriptive Statistics By Thesis

Categorical Variables (N=117)

Thesis:	Yes = 65	No = 52	
Sex:	Yes	Male = 21	Female = 42
	No	Male = 29	Female = 22
Degree:	Yes	Masters = 39	PhD = 25
	No	Masters = 51	PhD = 0
Status:	Married = 15	Single = 39	Divorced = 4
Yes	Widowed = 0	Cohab = 3	No reply = 4
Status:	Married = 15	Single = 31	Divorced = 1
No	Widowed = 1	Cohab = 1	No reply = 3
Department:	Biology = 18	Education = 11	English = 5
Yes	MBA = 0	Phys Ed = 8	Psych = 23
Department:	Biology = 0	Education = 10	English = 4
No	MBA = 32	Phys Ed = 4	Psych = 1

Continuous Variables (Y = yes, N =no)

		N	Minimum	Maximum	Mean	Std Dev
Age	Y	58	22	47	27.9	5.4
	N	45	22	48	28.7	6.1
Years of education	Y	64	2	10	5.8	1.7
	N	50	3	10	5.4	1.4
Year of program	Y	65	1	5	1.6	0.9
	N	51	1	3	1.6	0.6
Exercise	Y	65	0	12	5.0	2.8
	N	51	1	12	4.7	2.8
Nutrition	Y	64	21	88	40.8	10.5
	N	51	13	56	38.7	8.7
Vulnerability	Y	65	24	79	43.7	10.6
	N	52	24	77	45.0	10.4
Situation	Y	65	23	518	200.9	125.5
	N	52	57	515	198.7	111.5
Symptoms	Y	65	2	297	105.0	74.6
	N	52	5	362	89.4	74.3

APPENDIX F TABLE 12

One-Way Analysis of Variance by Department

Dependent variable: Exercise; N=115; R squared=0.118

Source	Sum of Squares	DF	Mean Square	F Ratio	Prob
btwn groups	104.6	5	20.9	2.923	0.016*
w\i groups	801.4	109	7.2		

Dependent variable: Nutrition; N=114; R squared=0.022

Source	Sum of Squares	DF	Mean Square	F Ratio	Prob
btwn groups	241.1	5	48.2	0.494	0.780
w\i groups	10538	108	97.6		

Dependent variable: Vulnerability; N=116; R squared=0.043

Source	Sum of Squares	DF	Mean Square	F Ratio	Prob
btwn groups	551.4	5	110.3	0.992	0.426
w\i groups	12222	110	111.1		

Dependent variable: Situation; N=116; R squared= 0.119

Source	Sum of Squares	DF	Mean Square	F Ratio	Prob
btwn groups	194174	5	38835	2.968	0.015*
w\i groups	1439076	110	13083		

* significant at probability < 0.05

TABLE 12 (continued)

Dependent variable: Symptoms; N=116; R squared=0.086

Source	Sum of Squares	DF	Mean Square	F Ratio	Prob
btwn groups	54934	5	10987	2.059	0.076
w\i groups	587051	110	5337		

Dependent variable: Age; N=103; R squared=0.383

Source	Sum of Squares	DF	Mean Square	F Ratio	Prob
btwn groups	1278.4	5	255.7	12.023	0.0*
w\i groups	2062.9	97	21.3		

Dependent variable: Yrs of education; N=114; R squared=0.135

Source	Sum of Squares	DF	Mean Square	F Ratio	Prob
btwn groups	38.2	5	7.64	3.385	0.007*
w\i groups	243.7	108	2.26		

* significant at probability < 0.05

APPENDIX F TABLE 13

Bonferroni t-Tests by Department

Variable = exercise

	N		Bio	Ed	Eng	MBA	PE
Bio	18						
Ed	21	t	0.677				
		p	0.502				
Eng	9	t	1.323	1.836			
		p	0.201	0.078			
MBA	31	t	0.374	0.360	1.706		
		p	0.711	0.721	0.103		
PE	12	t	3.047	2.306	3.977*	2.807	
		p	0.007	0.030	0.001*	0.011	
Psyc	24	t	0.018	0.624	1.255	0.076	2.911
		p	0.986	0.536	0.222	0.940	0.008

Bonferroni significance level
=alpha level/# of comparisions
= 0.05/15
= 0.003

Variable = Situation

	N		Bio	Ed	Eng	MBA	PE
Bio	18						
Ed	21	t	0.200				
		p	0.843				
Eng	9	t	3.827*	3.317*			
		p	0.002*	0.003*			
MBA	31	t	0.106	0.129	4.030*		
		p	0.916	0.898	0.002*		
PE	12	t	1.140	0.920	1.863	1.132	
		p	0.270	0.368	0.079	0.277	
Psyc	24	t	0.053	0.232	3.623*	0.152	1.124
		p	0.958	0.818	0.002*	0.880	0.275

t = t-statistic; p = probability; * = significant @ < 0.003

Department legend:
Bio = Biology
Ed = Education
Eng = English
MBA = MBA
PE = Phys Ed
Psyc = Psychology

TABLE 13 (continued)

Variable = age

Bonferroni significance level
=alpha level/# of comparisions
= 0.05/15
= 0.003

	N		Bio	Ed	Eng	MBA	PE
Bio	18						
Ed	21	t	3.894*				
		p	0.001*				
Eng	9	t	1.363	4.299*			
		p	0.200	0.0 *			
MBA	31	t	0.212	4.231*	1.300		
		p	0.834	0.0 *	0.226		
PE	12	t	4.507*	6.902*	1.094	5.462*	
		p	0.0 *	0.0 *	0.310	0.0 *	
Psyc	24	t	0.361	4.116*	1.098	0.196	3.910*
		p	0.721	0.0 *	0.294	0.845	0.001*

Variable = Years of education

	N		Bio	Ed	Eng	MBA	PE
Bio	18						
Ed	21	t	3.178				
		p	0.004				
Eng	9	t	1.630	0.384			
		p	0.124	0.710			
MBA	31	t	2.001	1.315	0.315		
		p	0.054	0.195	0.759		
PE	12	t	4.577*	2.107	1.314	3.116*	
		p	0.0 *	0.044	0.221	0.003*	
Psyc	24	t	1.471	1.649	0.592	0.459	3.206*
		p	0.150	0.108	0.564	0.649	0.003*

t = t-statistic; p = probability; * = significant @ < 0.003

Department legend:
Bio = Biology
Ed = Education
Eng = English
MBA = MBA
PE = Phys Ed
Psyc = Psychology

APPENDIX F TABLE 14

t-Test Analysis Results by Group

Grouped by sex: male & female

	Age	Years Ed	Ex	Nut	Vul	Sit	Sym
t	0.561	0.257	0.169	2.284	1.173	1.133	1.762
p	0.576	0.798	0.866	0.024*	0.243	0.260	0.081

Grouped by age: 26 + younger & 27 + older

	Age	Years Ed	Ex	Nut	Vul	Sit	Sym
t	NA	3.452*	0.766	0.462	0.224	0.333	0.712
p	NA	0.001*	0.446	0.645	0.824	0.740	0.478

Grouped by family status: singles & couples

	Age	Years Ed	Ex	Nut	Vul	Sit	Sym
t	2.830*	0.224	1.384	1.683	1.961	1.045	2.073*
p	0.006*	0.824	0.169	0.095	0.052	0.299	0.041*

Grouped by years of education: 5 + less & 6 + more

	Age	Years Ed	Ex	Nut	Vul	Sit	Sym
t	0.897	NA	0.166	0.645	0.262	1.324	0.186
p	0.372	NA	0.868	0.520	0.794	0.188	0.852

Legend:
Ex = exercise
Nut = nutrition
Vul = vulnerability
Sit = situation
Sym = symptoms

t = t-statistic
p = probability
* = significant @ < 0.05

TABLE 14 (continued)

Grouped by year of program: first year & subsequent years

	Age	Years Ed	Ex	Nut	Vul	Sit	Sym
t	1.817	4.186*	0.684	0.212	0.119	1.153	1.028
p	0.072	0.0 *	0.496	0.833	0.905	0.133	0.306

Grouped by degree: Masters & PhD

	Age	Years Ed	Ex	Nut	Vul	Sit	Sym
t	0.496	6.646*	0.835	0.194	0.302	0.922	0.052
p	0.621	0.0 *	0.406	0.847	0.763	0.358	0.959

Grouped by thesis: yes & no

	Age	Years Ed	Ex	Nut	Vul	Sit	Sym
t	0.689	1.409	0.552	1.130	0.673	0.097	1.129
p	0.493	0.162	0.582	0.261	0.502	0.923	0.261

Legend:
Ex = exercise
Nut = nutrition
Vul = vulnerability
Sit = situation
Sym = symptoms

t = t-statistic
p = probability
* = significant @ < 0.05

APPENDIX F TABLE 15

Pearson Correlation Matrix

	AGE	YRED	EX	NUT	VUL	SIT
AGE	1.000					
YRED	.157	1.000				
EX	-.010	-.018	1.000			
NUT	.221*	.004	.080	1.000		
VUL	-.076	.046	-.095	-.515*	1.000	
SIT	-.054	-.057	-.096	-.191	.394*	1.000
SYM	-.098	.020	-.113	-.222*	.409*	.801*
SITP	-.066	-.058	-.075	-.174	.346*	.970*
SITF	-.038	-.052	-.113	-.198*	.420*	.965*
SYMP	-.099	.054	-.070	-.218*	.411*	.775*
SYMF	-.092	-.014	-.015	-.217*	.390*	.792*

	SYM	SITP	SITF	SYMP	SYMF
SYM	1.000				
SITP	.787*	1.000			
SITF	.761*	.872*	1.000		
SYMP	.977*	.788*	.708*	1.000	
SYNF	.979*	.753*	.781*	.914*	1.000

Legend:

AGE = age
EX = exercise
VUL = vulnerability
SYM = symptoms
SITF = situation; future
SYMF = symptoms; future

YRED = years of education
NUT = nutrition
SIT = situation
SITP = situation; past
SYMP = symptoms; pats

* = significant @ < 0.05

APPENDIX G

Interview with Lisa - Subject K

THAT'S ALRIGHT. UMM...JUST TO START OFF, YOU MAY RECALL THAT I'M DOING RESEARCH ON GRADUATE STUDENT STRESS, UMMM...I JUST WANT YOU TO KNOW THAT OUR CONVERSATION WILL REMAIN CONFIDENTIAL, YOUR IDENTITY WILL REMAIN ANONYMOUS, BUT I MAY USE EXCERPTS OF OUR DISCUSSION IN MY...IN THE TEXT OF MY THESIS IF THAT'S ALRIGHT WITH YOU. FINE?

Yes. This is my permission slip right here.

UMMM...JUST TO START OFF I'D LIKE TO KNOW A LITTLE BIT, I KNOW YOU, BUT FOR THE SAKE OF MY TAPE, CAN YOU TELL ME A LITTLE BIT ABOUT YOURSELF, WHERE YOU'RE FROM, YOUR THOUGHTS, ETC.

Age and background, do you want that sort of stuff?

SURE. AND YOUR MARRIAGE, AND...

Yes, ummm...I'm from Vancouver, British Columbia. I lived there for 25 years and for the last 3 years have lived in Kingston, Ontario. I've been married for four and one-half years. My husband's presently attending school as well. We've been, both of us have been full-time students for two years, and he was in school for one year before that, before that we were both working.

UMMM...YOU CAME TO KINGSTON FOR?

So Jim could go to Law School. So we both quit our jobs in Vancouver. It was a stressful move. We quit our jobs to move to Ontario.

SO YOU WERE BOTH WORKING AND THEN CAME BACK TO SCHOOL?

Uhum.

WHAT WERE YOU WORKING AT IN VANCOUVER?

The first job I had was in an advertising agency and I went on from there to become a public relations officer for a company there, for the Institute of Chartered Accountants, and I was there for two years, and that's the job I was in when we left for Ontario.

OKAY. DID YOU DO YOUR UNDERGRAD WORK IN VANCOUVER?

I went to, I did high school, all my school and high school in Vancouver and attended the University of British Columbia for two years, and then I transferred down to a school in Washington State and finished my degree in Marketing and Broadcasting.

WAS THAT, WAS IT THE PROGRAMME THAT ATTRACTED YOU?

Yeh. It was. I attended a family reunion, I guess the end of my second year at UBC in the States, and they had a communications programme at the University of Idaho and I think up until that time I assumed that every university in the world was like UBC, and you could either be in Arts, Sciences, Medicine, Law, or Forestry and those were the only options. And it never occurred to me that they'd have other things and I think when I saw that, that just twigged. And I thought that was much more of what I would be interested in, so I went down to a school in Washington State.

SO YOUR UNDERGRAD IS IN COMMUNICATIONS AND BROADCASTING?

Yes.

OKAY. AND YOU'VE BEEN IN KINGSTON FOR THREE YEARS.

Yes. Two and one-half, I guess, it would.

YOU'RE MARRIED AND HAVE NO CHILDREN.

And have no children, uhuh.

YOU LIVE IN AN APARTMENT?

We live in married student quarters provided luxurious accommodations, of course through Queen's University. About the size of this room.

RIGHT. UMMM...THINKING BACK TO THE QUESTIONNAIRE, UMMM...DO YOU HAVE A GENERAL COMMENT TO MAKE ABOUT IT, HOW USEFUL YOU FOUND IT OR WHETHER YOU FELT IT WAS ADDRESSING SOME OF THE THINGS THAT WERE HAPPENING IN YOUR LIFE, OR NOT AT ALL, OR...

Ummm...some things I thought were very applicable. There are a couple, there were a few questions I should say that I think I was just scraping to answer, but I just didn't feel were me at all.

AND CAN YOU...

There's one whole section, I think, where I just left it blank, or I left it as no comment, or something, and it was about my muscles...what was it?

THE QUESTIONNAIRE IS DIVIDED INTO TWO SECTIONS AND UMM...THE

FIRST SECTION IS SITUATIONAL ITEMS, THE SECOND ONE IS SYMPTOMS THAT YOU MIGHT EXHIBIT.

Okay, I think it was the symptoms one, I think I was much more like my immune system and sympathetic nervous system, and endocrine system, and this type of...I think I didn't answer that as much as I felt as the beginning section.

OKAY. IF YOU LOOK BACK AT THE FIRST COUPLE OF PAGES THERE, AND JUST MAYBE EVEN EYEBALL THE NUMBER OF THINGS YOU'VE IDENTIFIED, UMM...CAN YOU THINK OF THINGS IN TERMS OF SITUATIONS THAT YOU FIND STRESSFUL IN YOUR LIFE?

I know one thing I filled out last year was death of a close relative when my grandfather died, and uh...for me he was probably the most influential person in my life. And uh...I think, he was 94 so you kind of expect that kind of thing is going to happen at some stage, but even though you gear yourself up for it, when you get a phone call from your mom saying it's happened, it just, it's never something that you want to hear.

IS THAT SOMETHING LIKE, ...OBVIOUSLY STILL UPSETS YOU.

Uhum.

DID YOU ADD THAT TO THIS QUESTIONNAIRE?

Yeh.

EVEN THOUGH IT HAD HAPPENED?

I did, but he had just died after I filled this out.

SO IT'S INCLUDED.

Whereas the last time I filled it out, it wasn't there at all.

WHAT ABOUT OTHER THINGS, LIKE MAYBE JUST ON THIS PAGE IN THESE NEXT THREE PAGES...

Okay.

OR, IF THAT HELPS JAR YOUR MEMORY, OR THINGS THAT YOU JUST THINK OF...

Oh, one thing...I'm looking here under individual roles, under very stressful, it says personal injury/illness, and I was hit by a cab this summer riding my bike in Toronto, and umm...it was just one of those things. I broke my wrist and my wrist had to be reset, I was in a cast, I guess, for about six or seven weeks, ummm...I guess the problem with all this was that it wasn't my fault that this took place, which I guess is frustrating in that the cab driver took off, but somebody caught him and chased him and now we're launching a civil lawsuit against this fellow. So, it was stressful at the time, it's not now because my wrist, I think, is a little better, it still hurts...actually this morning it kind of is..when it's cold or damp I can really feel it. But it was just frustrating, I was just mad about this whole acc...you know, this whole thing taking place. It was just inconvenient all round, so that was frustrating. I'm thinking of other things, ummm...the other things I feel are most, a lot of them have to do with, wanting to become involved in a lawsuit or court procedure, but I think that is somewhat stressful but not entirely because I think the fact that I've got some people behind me and beside me going through it with me, there's Jim and he's got kind of an idea of what we should be doing so I think it would be much more stressful if it was just me by myself having to figure things out. But the other things that are stressful mostly relate to school as in lack of personal privacy, not enough time for Jim, not enough time to get things done, not enough time for the two of us, which are really just more frustrating than stressful. You just can't accomplish as much.

WELL, IT'S SOMETHING YOU'RE AWARE OF AND...

Yeh, and I think we both realize we don't have enough time to do everything and we just, I know that we both get mad over it, I think, or I just suppose it's going to be better, I think knowing that there's light at the end of the tunnel...

DO YOU FEEL A LITTLE BIT LIKE YOU'VE PUT THAT PART OF YOUR LIFE ON HOLD FOR A LITTLE BIT?

Yeh. Exactly.

LIKE, WE'LL DO THE ROMANCING NEXT YEAR WHEN WE'VE FINISHED BEING STUDENTS.

Our joke is next August. We're doing everything next August because by that time we both will have worked for two months and should actually be meeting/touching, just getting back into the pack. So, everything's happening, you know.

ARE THERE ANY THINGS THAT YOU CAN THINK OF THAT THE QUESTIONNAIRE MIGHT NOT HAVE TOUCHED ON THAT YOU KNOW ARE, IS STRESSFUL IN YOUR LIFE?

It didn't touch on? I thought it was very comprehensive. In the fact that there were just so many things here that I just didn't have anything to do with, so I'm sure it touches a lot of other people's lives, but it seems very comprehensive.

IF, FOR INSTANCE, YOU KNOW, IF I WERE JUST TO ASK YOU AND YOU HADN'T SEEN THAT QUESTIONNAIRE WHAT WOULD YOU SAY IS MOST STRESSFUL FOR YOU IN YOUR LIFE?

Oh, right now?

UHUM.

It's funny. Right now, even if it'd been two weeks ago, I would say getting a job. But I think I've got a job, so...I'm not stressed about that. And I think because I have a job I actually don't care, the pressure is off for school____________.

OKAY, SO LET'S GO BACK, TWO WEEKS AGO, TELL ME ABOUT THAT STRESS.

I think that was a lot more stressful because the whole job recruiting process I think can be stressful. Maybe not personally, you might think you've got it under control, but in talking to everybody else, they're getting jobs maybe you don't even want to get hired by these companies that these other people are getting hired by, but there's the pressure, subtle that it is, that everybody else is getting hired and I should be getting hired, too. And I went partly through the recruiting process but I also did a lot of stuff on my own and the company ended up--I'm trying to get back to the job offers by saying I'm not hired officially yet, but ummm...I did that on my own, so I think it's kind of difficult being on the outside, and meeting people going on interviews and that type of stuff________________a job. And people starting to get job offers and stuff like that. Ummm...but as I say, I have a feeling that these are the _________ over Xmas and umm....which were stressful to a point and just didn't ____ for a few days, for three solid days. But they all worked out well because I got offers from them, then also that _____ a little bit of stress at the time.

SO, AT THIS POINT YOU DON'T FEEL THERE IS ANY STRESS.

Well, not really. I think because, and you know, I got an offer, I had a couple of offers last week, and I've gone through the thinking process as to what's important. As I say, two weeks ago when I didn't have offers and was trying to decide what I wanted to do, when I was in the process of thinking, that was a lot harder, I think. But now that I've come, I've made a decision, ummm....it's not like I-- One thing that is stressful is the fact that one company that has offered me a job is very persistent and I'm not going to go with them. And I really am quite stressed about having to phone them, I'm so embarrassed.

SOMETIMES WE HAVE A LITTLE PROGRAMME THAT PLAYS IN OUR HEAD. WHAT KINDS OF THINGS GO THROUGH YOUR HEAD WHEN IT COMES TO..

To ___________ to bat you mean?

YEH.

Well, I think I run through what I'm going to say, and then I have all the different scenarios of what her different answers are going to be, and ummm...I...

HOW STRESSED ARE YOU ABOUT THAT?

Well, I think in the fact that she reminds me of a woman who, if I came on board loves you. Like you're her person and, it's kind of like maybe a personal conquest for her in the fact that the large company, you know, you were sent out to hire this person and you got her and you're designated this person. And these two people come back and they've hired and you haven't. What was the problem? You slipped up. So I think there's a bit of pressure on her for that, umm...and uh...I think she has been so persistent in calling. I love having one interview and then three weeks later you get a job offer, you know, intense interviews and intense follow-up that I think that it's just that much more complicated in the form of pushing me back. So I think I'm just trying to figure out what my reasons...I do have reasons for not going with them, but I just have to make...and they're justifiable to me, but I think, you know, the crunch is on and you're actually talking to the person, why fall apart and just say oh, I just...just leave me alone I don't want to...because I think she's going to be quite persistent and not just take I'm sorry I've accepted another job as an excuse.

DO YOU WANT A MINUTE TO DRINK YOUR TEA?

No, I can, I can no...it's okay.

UMMM...FOCUSING NOW ON THE PROGRAMME. YOU'RE IN AN MBA PROGRAMME. MY UNDERSTANDING IS IT'S TWO YEARS OF COURSE WORK, IS THAT RIGHT? YOU DON'T HAVE A THESIS PROGRAMME?

No.

WHAT, WHAT ARE THE STRESSFUL THINGS ABOUT YOUR PROGRAMME FOR YOU?

Ummm...I thought last year was much more stressful than this year. And, can I talk about it, should I talk about that?

SURE.

Ummm...I thought the whole process last year was extremely stressful and...

HOW DO YOU MEAN THE PROCESS? COULD YOU ELABORATE ON THAT?

Ummm...I think it just starts off on day one in the fact that you come into a classroom of 100 or 99 other people who you don't know, you've in fact lost, for us moving to Kingston you've lost your support system, you're entire support system, your family's not there, your parents aren't there, your friends you went through high school and university with are not there, your work friends...ummm, you're just there with all these new people. And, I mean, for me luckily I had a husband, but a lot of people don't even have that much and ummm...you have this kind of _________, and you say oh, this is going to be great, and then bang it's Monday morning, and you think, Oh my God and there's, I think it's fear of the unknown. You don't really know the subject matter that well, you don't know what is in fact expected of you, and you don't know what's coming, but you hear through the awful second years about how hard it's going to be. So, it's foreshadowing and I think we build up to maybe more than _________ but that's, it's hitting at you from all angles, and I think that causes...for me I think it causes quite a bit of stress, I lost some weight the first term. But just because I was, I don't what, I just didn't eat, I just wasn't hungry for about three weeks.

WAS IT NERVES, LIKE?

I think it was. And I've never really been like that before. But that was the first; that was the first time I can really remember being nervous in a class. I think it's you know, usually when you go through, you know, you go through elementary school to high school and you know everybody in high school, you meet all your friends from elementary school and then you go up to UBC, well everybody there went to your high school! Or, you recognize some of these. Even though UBC may be different, the environment's similar, the city still the same, _____________ weekends, you saw your friends, those people you could talk to about. And I think that's another thing at the UBC programme which you don't know who your friends are. So, you think..am I the only person that doesn't understand specifically, I must be because nobody's asking any questions. So, you think you're the only one. Whereas in fact there is a whole gang of you in the same situation.

NOW LOOKING BACK.

Yeh. And I think some of the people I gravitated towards were the ones that seemed to be in the same situation, I mean, I can identify with how they're feeling, I mean they're disgusted with the same things, and that kind of thing. Like, what do you think about this, I just hate it as well, and..._______and I think that feeling of camaraderie builds a lot faster when you __________ same situation as the other person.

WHAT KINDS OF THINGS, UMMM...TWO QUESTIONS ACTUALLY. WHO IN YOU LIFE WOULD BE THE PERSON YOU TURN TO AT THAT TIME?

Ummm...during that time it would be Jim, my husband.

WAS THERE ANYBODY ELSE THAT YOU COULD, OR GENERALLY WOULD?

It depends what you mean by turn to. There was another girl in the class who we were in the same section, did every single class together, and in fact used to walk home from school, we cried a number of occasions about how much we hated our lives, and hated the programme, and hated, we hated the fact we were even here. Like why are we here, this is gross. And we'd cry and we'd start laughing at the fact that we were supposedly graduate students having these nervous breakdowns about this stupid programme. Then you'd get mad at yourself, and we'd say well I think this has helped. That was wonderful because as much support as a husband can give you, or a wife, or whatever the equivalent significant other is, ummm...they're not in fact there and they don't have the same background and, you know, what may upset me about finance or statistics if that's the other person's forte in life, that's hard--they can sympathize but they don't really understand. So, umm...and I think you can, like, cry wolf to often if you're always upset_____________after a while, so it's, I think those are the two people____________a friend in the programme.

OKAY

Which make a big difference.

WOULD THERE BE ANYBODY ELSE, LIKE PROFESSORS OR FAMILY AT HOME.

Ummm...the family at home was 4,000 km away so that wasn't much and I think if I called my parents and was depressed or sad, they'd get all worried and then they'd be worried and I'd be worried, so it wouldn't be useful. Ummm...professors--there were a couple. There's a female professor last year who actually seemed to be quite pro-active in finding out how people were doing in the programme and I felt...I went and talked to her a couple of times, not necessarily being upset but just ummm...she would make, she'd be questioning you on how the programme was going and what you thought about it and how intense it was, and she was kind of a good __________ but I didn't use her very frequently at all. There was more a personal network set up.

HOW SATISFIED WERE YOU WITH THE PROGRAMME WHEN YOU WERE IN FIRST YEAR?

Satisfied with what the content was?

YEH, AND JUST, YOU KNOW, BEING.... I UNDERSTAND YOU WERE UNSATISFIED.

I think after, I think after Christmas exams, like the world changed. Even though I think the second term was harder in course load, I think I proved to myself I could do it. I did really well, I think that was the best part about it. ________ I did really well, so umm...I think I proved to myself that I could do it and I could survive. Even though I hated it in the process, I could________. So, I think the feeling of accomplishment made me think that uh...oh, I can do anything now. Even though I may hate all these courses I take in second term, I think how, you know, alright you can get through it. As far as the course was concerned, I think there were times when I felt that these had no direct application on my future life, and I think there are some courses which that's the case. But I was surprised this summer in a job I had, how...how many times just odd things she talked about came up in conversation and you knew about them. I mean entire courses became useful such as the computer course where I was suddenly the computer whiz in the bank. But then there were these other ________ things that came up in class discussions where somebody was talking it, and oh you know about that, and you suddenly have this accepted or credibility of potential peers.

HOW HAS THE PROCESS CHANGED? YOU SAID IT'S CHANGED FOR YOU THIS YEAR. IS IT BECAUSE YOU'RE NOW SETTLED IN, OR....

I think so. I think there's, I'm not sure whether it's psychological, I'm sure most of it's psychological in the fact that you think I've made the first year so I can do it. In here the second year's better because you get to pick the courses umm...so you think oh, it's going to be better anyway, so you're anticipating a better time. The courses in fact are better or more interesting because you have picked them, so that's part of it. I think a lot of...or one thing for me however has been good for my attitude and everything, I don't think I had a poor attitude the whole way through....was being involved with the first years a lot. When they came in and they're struggling and everything and suddenly they're asking you, well how did you get through this, and how did you get through that, suddenly you feel, oh, well, I'm so cool and in control of my life, here's what I did, whereas the fact is I was, you know, useless last year. But I think that makes you feel useful and therefore you're kind of giving back the way some people maybe last year helped me think about, you know, situations when I was having a bad time.

WHAT, DID YOU HAVE CERTAIN LITTLE STRATEGIES THAT HELPED YOU GET THROUGH, YOU KNOW, SOMETIMES...LIKE YOU MENTIONED ONE FRIEND USED TO WALK HOME AND CRY AND GIGGLE AND THAT HELPED.

Yes.

WHAT ELSE DID YOU DO? I ASSUME YOU UMMM...WORKED THEM OUT.

Okay. Oh, I see, okay. Ummm...for me a good way to release tension is going to fitness classess or exercising, and since it's too bloody cold to run, I have to go to fitness classes, and I like those. And for me, last year that was great that I was not very responsible in going. I went at the beginning, I went among exams, I went every day during exams and that was great. And I'd think about...oh, I really missed the boat during the whole term. I think if I'd been coming more regularly I might, you know, I might have seen other people other than in the MBA programme and have discovered that there was a world out there and if that, maybe my stats was not the most pressing thing going on in the world and might have been...help me put things in more perspective. I think exercise was very important. Ummm...I think just general talking to Jim about whatever, just talking out my problems, or maybe there weren't any problems, just talking about the day. What we did today and what was going on, and having something like that. Another thing I do a lot is write letters, that's probably cathartic, but I didn't know how to put that before. But my grandfather was alive last year and he is too deaf to be able to listen to the radio and the TV, so all he can do is read, and I, every week I wrote him a letter and I'm...often trivial nonsense that didn't mean anything, but I think he liked the fact that he got a letter from his granddaughter and he was living with my parents so they...kind of got the letters although I addressed it to him because he could open the mail. And that was great because I think there were times you might be frustrated and not think it's worthwhile enough to phone home about, but you could talk about frustrations or how dumb you think such professor is, or how frustrated you are about something, and you can get it off your chest for the moment, which I hadn't really thought of, but probably I think, probably what I did.

WHAT ARE OTHER THINGS THAT YOU...DO YOU READ NOVELS, WATCH TV, AND GO OUT TO DINNER, AND....

Ummm...no, those all stopped, kind of, when we went back to school. We didn't go out for dinner at all last term, we just stopped because both of us were working. Umm...movies were kind of the same thing. One thing we did do as husband and wife was every Friday we had pizza night, home-made pizza, we watched TV and it seems like a funny thing but that's our time together, like Friday nights are for us and we don't often go to socials through the, you know, the various law schools and the ...school, and we umm...we either go grocery shopping together or one of us goes, come home, make our pizza, sit down and watch Dallas. As exciting an evening as that seems, at least it's us and it was our tradition and that's what we did, and umm...that was probably good too, I think. It's sad, I guess, that you have to establish a certain time and place to be together, otherwise you won't see each other, but I think it's also good in the fact that you will value that time.......everything else.

DO YOU ANTICIPATE THE STRESS IN YOUR LIFE CHANGING IN THE NEXT YEAR?

The next year?

YOU'RE GOING TO HAVE A LOT OF CHANGES IN THE NEXT YEAR.

Yeh, right. Umm...yes, I guess the coming year is going to be very stressful and the fact that both of us will be starting new jobs, we're moving to a city that has no vacancies which will be very stressful, we'll be living in a tent probably for four months. Umm...that is, I guess it's kind of stressful when I'm not thinking about it, 'cause I'm kind of a fatalist and I think something will turn up. I don't know how, but I know something will turn up. Ummm...so I'm trying not to get too worried about that. Ummm...so that, those will be fairly, I guess, stressful things because they're large and they encompass, like each part of your faculty life. Umm...moving to a new city, I guess, is somewhat stressful in the fact that you're not surrounded by the people you know and love. Especially, moving out of the environment at Queen's, I think it's very insulated from the rest of the world and you've got all these people around you that have been really empathizing, and they really do because they're doing the exact same thing, and probably umm....... having a lot of people as well......about that. That probably will be a bit change as well. Umm...the only other thing that I can think of that might be stressful would be things like if I got pregnant which would be highly stressful because I don't want it to happen, you know, but that's one of those things you can't really control, but that would certainly influence my job and our ability to buy a house and it would, you know, how you want to control your life right now, so I think that would be umm...very stressful.

DO YOU HAVE CERTAIN KIND OF GOALS THAT YOU WILL MOVE TO TORONTO, BUYING A HOUSE...

Yes, kind of.

GOING SOMEWHERE, THAT SORT OF THING?

Yes, umm...I think we're not too firmly entrenched in our goals because we've almost lived in four or five different spots and it's never happened, and I think I've just kind of given up firmly believing that it's going to happen on a certain date. But, uh...I think--we do have goals, but they're kind of nebulous, I mean housing is a priority, yeh, we're going to have to live somewhere and the decision is should we rent or else maybe try and buy and mortgage ourselves to the hilt and see if we can get....... So I think that's a decision, but that'll probably be predicated by the fact that there's even houses to buy. It may not be an option for us. It just may kind of happen one way or the other.

AT THIS POINT YOU KNOW YOU'RE GOING TO TORONTO?

Yes because Jim has a job there as well. Yeh.

THAT MUST ALLEVIATE SOME STRESS IN KNOWING WHERE YOU'RE GOING?

Right. Yes it does. And actually he's had a job, a security job since August, so we haven't really even been considering that. Even in interviews I knew I was going there I didn't make a decision of Vancouver or Montreal, Toronto was just...I knew it had to be Toronto so that eliminated a whole bunch of possibilities.

THINK OF YOUR STRESS EVEN LAST YEAR OR THIS YEAR, HOW WOULD YOU COMPARE YOURSELF TO YOUR CLASSMATES?

I think I'm more emotional than...I know a lot of people in our class and I don't know whether that's because most of them are male and therefore it's kind of ingrained into their psyche that their supposed to be.....because they don't get uptight at their school, or what it is. I think they just cry at meetings all the time anyway, so maybe that's just me though....but a lot of people I think may have in fact had a lot more problems than they actually showed or ever talked about. Umm...even this that's coming out now, people say oh, I just hated last year it was this and this and this, and you think, oh, well, gee you looked so calm and cool sitting in class. Oh, no I just hated it and I didn't have anybody to talk to and I...in some ways I kind of feel sorry for people like that who can't express their emotions because umm...it's fine if you are in control and there's no need to talk to anybody, but if you're not and you're keeping it to yourself, I don't think that's any better than being upset and talking about it. I think that's probably worse. So as far as, on a scale I'd probably say I'm...I think a lot of people were affected by the programme, the workload and stress and.....all kinds of stuff, and I at least recognize that about it and I certainly talked about this a lot to people, you know, friends that...even their husbands and stuff, family as well, so umm...I don't, maybe, I certainly told, told people that I was, not everybody but a certain group.

SO GENERALLY THOUGH EVEN, YOU'RE SAYING THAT YOU'RE AN EMOTIONAL PERSON, DO YOU STILL, DOES THAT MEAN YOU'RE STRESSED, OR...

No, I don't think I'm stressed, I think that makes me less stressed.

OKAY. WOULD YOU SAY YOU'RE LESS STRESSED THAN A LOT OF PEOPLE?

I think I get, you see, stress is one of those words where I think, what does that really mean, because I'm emotional, I think I'm enthusiastic, but I think people could say well, gee are you stressed out completely, no I'm just happy. I don't think I'm stressed. To me the word stress has a negative connotation about it where umm...I don't know maybe you get psoriasis or maybe you get, I don't...or maybe you lose weight or something, there's something kind of physical that happens to you associated with it, whereas stress I'm sure can also not have any kind of physical signs as well.

YES. THERE'S A CERTAIN AMOUNT OF STRESS THAT IS POSITIVE TOO.

Uhum...it makes you work better, more efficient, yeh. Yeh and I guess umm...that certainly happened last year, you just wanted to be that much more efficient. I think when I think of stress I think it means that it's destructive as opposed to positive stimulation, I think I almost make a distinction between that.

WHAT WOULD...IF I ASKED YOU TO DESCRIBE OR DEFINE STRESS, WHAT WOULD YOU SAY? MAYBE WE WERE ALMOST TALKING ABOUT THAT.

I think I thought of it as being stressful as in being more negative in a sense and I would think that I would describe it as a...something that happens to you when you're, something bad has happened in your life or uncontrollable, or umm...or some kind of event like that, and I would think about it as something you hear about the pressures as opposed to the positives which would make you maybe more efficient in school, along that line.

OKAY. YOU MENTIONED PHYSICAL CONNECTIONS. WE DIDN'T REALLY LOOK AT YOUR PHYSICAL SYMPTOMS. ARE THERE THINGS IN YOUR LIFE, IT'S JUST OVER THE NEXT COUPLE OF PAGES THAT...YOU'RE AWARE OF OR YOU THINK HAVE, YOU KNOW, SYMPTOMS THAT MIGHT BE RELATED TO STRESS OR...

The only thing that I know, or that the doctors ever told me, they keep saying, she thinks was...something that was stressful was when I was doing my undergrad I had an itchy eye. I thought it was due to make-up, and uh...I use...make-up and mud and stuff and the doctor was saying no, no I think you're just upset about school and I remember thinking well that's wrong, I really like school, but maybe in fact when something was bothering me I didn't really know or care to acknowledge it, so...

AND DID THAT SYMPTOM GO AWAY?

It did, finally. It just seemed to go away by itself, so I'm not really sure about that. As far as this is concerned, you know I've been looking at the symptomatic list...cold hands or feet, well I always have cold hands and cold feet, regardless of where I am or what age I am so I don't think that has anything to do with the programme. Feeling blue or depressed, that's certainly in the past.

YEH.

It was much more. In the future, I just, as I say, feel much more in control about my, about what's going on, umm...one thing, oh here, the cognitive system, it says indecisiveness. That is something I never used to have a problem with, I'd just say here we are let's go. I don't know if it's a phase or what, this last year I've just noticed that that has changed. I have difficulty falling asleep, that sometimes happens, and feeling tired, well I always feel tired in school, so...ummm...and colds, I've had many, I've had umpteen, way more colds, since I've been in school.

YEH.

But I'm sure that's just like little children going to a big room, where all those many people, where everybody has everything. I can't think of anything else.

OKAY. WHAT ABOUT UMM...CAN YOU COMMENT ON WHAT IT'S LIKE TO BE SO FAR AWAY FROM YOUR IMMEDIATE FAMILY. IS THAT A PROBLEM FOR YOU?

Umm...I think, my family is, we're fairly close, we're not bonded together and we're not umm...needing, we're just, I think you'd call...I'd say it's a healthy mother/father/daughter/brother relationship. One thing I do appreciate about my parents even though they are 4,000 kms away, I'd say they both write to me, well maybe...it used to be every two weeks, and now it's getting down to about once a month. But they both write separate letters, and they usually put them in the same envelope and send them along, and so, you know, every three weeks or so you're opening a letter from your mom and dad and they're just telling you everything that's happening, and my mom talks about redoing the room and I saw so and so at church, and uh...and oh, and the funniest thing happened at my job, and I really get a sense, a feeling of what's going on in their lives, and I don't feel like I'm so far away from them as well. And we were home for Christmas, the last two years, which was nice, we went really for, it's like, it's kind of like we're keeping in touch with them. Plus, they also don't place a lot of pressure on us to, we have to return, and oh aren't you going to come home for Christmas for, you know, two months, and of course you'll spend all your holidays here. They're not like that at all which I think puts a lot of, takes a lot of pressure off us as a couple. I think if you get those family pressures happening as well as school pressures, it's hard.

ARE JIM'S PARENTS FROM VANCOUVER AS WELL?

Yeh, they're in Vancouver too. And they're the same way. They love it if you come home, great, you know, let's do something, but umm...they're not pressure enough...they maybe have a little more pressure to come back to Vancouver immediately, umm...but I think they realize that we're doing what they did as a young couple, they left Winnipeg the day they got married and they won't go back, so I think it's...you know, we've had those discussions with them about, you know, you want us to come back but in fact you did the exact same thing. Oh you're right, we just want you around. So, I think they understand the pressure that may have been put on us.......

DO YOU THINK THERE'S EXTRA PRESSURES IN YOUR LIFE FOR HAVING YOUR HUSBAND AS A STUDENT AS WELL?

Ummm...I think it's better than it was when I was working and he was at school because, the reason I say this is because right now we both have a lot of kind of school commitments whether it's academic or extracurricular, we're both involved in other things, and uh...when I was in Kingston working and he was at school, I found it much more difficult to be in Kingston because I was much more jealous of the time he spent at school and with other friends, and it was important to him, and to him as a person to make these friendships with these people, and meet them on his own. But, I was in a new city, new environment, new job...didn't have a job for one thing that was stressful, but a lot of...I didn't have anybody to talk to. I needed him, he was my only source of contact, of person, and when he was.......pub....

YES, YES, I KNOW IT WELL.

You know, and it's really hard, I think, and umm...you really have to make an effort when there's a something to go, even when you don't want to go and you're, you just don't want to meet anybody or you're all kind of mixed up, I think, at times. You have to go and start meeting some people so that you become friends with them so that the next time that you see them it just gets easier and easier and uh...and I think that was a lot harder on me that I was not involved. I think it's much better when you're both at school.

BOTH ON THE SAME...

Both on the same track team, the same schedule. We see, you know, we're both home for dinner at 5 and we take turns one week on, and one week off cooking and stuff like that.

OH, NICE.

So, whereas when we were in Vancouver both working, well he was a CA and working until 11 o'clock at night and, you know, not home in April, you know, see you in May because it's so busy with taxes and stuff like that, that we might have dinner maybe three days a week, four days a week in Vancouver together, whereas here it's every night, always and you get up at the same time and maybe you see the person at lunch or something if you're at school. So, I think it's much more regular contact.

WHAT ABOUT THINGS THAT GO ON AT HOME, YOU SAY THAT YOU ALTERNATE COOKING SUPPER, WHAT ABOUT THE OTHER CHORES AND THINGS, HOW DO YOU FIND THAT AS A STUDENT?

Ummm...it sorted itself out uh...I think when Jim was at school and I was working I was much more complacent and I said well, you know, spend the time studying and I'll do the dishes so that we'll have more time to do together to do fun stuff, that was the kind of the way I looked at it. But when I went back to school, umm...there was much more division of labour. Now...

DID YOU OUTRIGHT ESTABLISH THAT?

Yeh. From day one. I think we talked about it in the summer before I went to school. I think he is a lower, I have a lower tolerance for the build-up of dishes and just how many weeks we go without vacuuming, so I think I always tended to do it and that still holds true to a certain extent, but there are certain things that we alternate. One is every second week you go grocery shopping and then you cook for that entire week. So there's no excuse that there's no food in the fridge, because really it's your responsibility to go get that food on Friday and the other thing we exchange is the laundry. It's...whoever, you know, we just take turns, whether you want to let it build up to or whether you want to let it......it's your kind of option, but it's still your turn to do it every second time. We do stuff like that, but I think a lot of the other household chores such as cleaning, you know, the bathroom and that kind of stuff it's me just because.....we talked...

IT BOTHERS YOU MORE?

It bothers me more and I just can't, I just don't want to be the big nag the whole time. Please, please it should have been you to do it, begging someone to clean the mirror, and it just gets done faster if I do it.

SO THAT DOESN'T SEEM LIKE IT'S A SOURCE OF STRESS FOR YOU.

No, it's not actually umm...the cooking end, the wash and everything is fine because you know exactly where, what my responsibilities are one week and what Jim's are the next week, and whoever washes, or whoever cooks, the other person cleans up the kitchen. So you, it's fair, and he's a good cook, so...

DO YOU ANTICIPATE CARRYING ON THIS?

No.

WHAT'S GOING TO HAPPEN WHEN YOU'RE BOTH WORKING?

I don't know. I'm not sure. But I have a feeling it's going to go back more to me cooking. And...the only reason I say that is because although I think Jim is not umm...like, oh, it's your, it's your job--he's not like that at all, but I think just the function of the job he's going to have for the first year is supposedly very very time-consuming and a lot of time is, you know you might be expected to be at work until at least 8 or 9 O'clock every night, so that means, well if it's his turn to cook I have to wait until 10 just so I can have some food. Well, no, I'll probably end up cooking and have extras in case he comes home. So, I think by default, it's going to end up. Now, I'll be in a job too. I don't know how it's going to work out for the first little while. We might try it and then just see what happens, but it might be just kind of fend for yourself situation which is terrible, but...

BUT, WHEN YOU HAVE TWO PROFESSIONALS STARTING OUT.

Yeh, yeh, it is. I think that's just...we both have to be willing to put a lot of time in for the first couple of years, and that may, maybe it will mean we'll go out for dinner more often, because maybe we'll have money and maybe we'll have, you know, yeh...maybe, you know, if we're both working and it's 8 o'clock at night, let's just go somewhere, which in fact I think can be better for your relationship because you're just sitting down talking as opposed to doing those...I call them perfunctory chores. You know, are you going to take out the garbage, or should I? And I'll go, umm...will you do this so we can have dinner, and you're not really talking as a couple you're talking about these mundane domestic chores that have to be done, so maybe that could be an up side of that.

DO YOU LOOK FORWARD TO THAT TIME AHEAD, OR ARE YOU NERVOUS ABOUT IT, OR HOW WOULD YOU DESCRIBE YOUR FEELINGS ABOUT IT?

Ah...in some ways I look forward to it. For a lot of reasons I look forward to it because I think we both have got a lot out of our respective programmes, uh...we've been working so we know what it's like on the other side, so we know we want to get back into working. I mean the thought of just having money coming in on a regular basis is intoxicating. So, umm...but I think the down side of it is that right now we have a nice life together. It's kind of a dull life and a funny life, but it's very constant and regular and you see the person on a regular basis, and we spend time together on a regular basis and we have time to spend together on a somewhat regular basis, so I think that for sure is going to change and that's kind of a fear of the unknown. But, it's kind of exciting, but it's something new, but yes it's kind of...something you have to work towards to ensure that you have the same kind of time together. Maybe it's something we'll really have to again set times and dates.

IF SOMEONE WERE TO ASK YOU, OR GENERALLY WHEN TALKING ABOUT GRADUATE STUDENT STRESS IN AN MBA PROGRAMME, THE MOST STRESSFUL THING ABOUT DOING AN MBA, SOMEBODY WHO'S OFF THE STREET, WHAT WOULD YOU SAY?

Well, there's...okay, umm...a lot of people, a lot of friends have asked what I think about the programme, and I think, I always say it's, I don't usually say it's stressful, I think I usually say it', it's really hard...it's really time consuming hard, maybe not hard in the sense of difficult as individually each of these courses is probably great on its own, but at times we have all six of them together and they're all happening, we've got all these pressures from different groups taking place, that you really have to organize your time and organize how you're going to get everything accomplished. And I think it's stressful due to the fact that you have to learn that it doesn't matter. It doesn't really matter if you don't do that case and take notes on it, because that's the way it is and don't get all bent out of shape over that, which I think at the beginning as a conscientious did fairly well undergrad coming in, you think, oh, I've got to keep my same marks up, I've got to read everything and have my reports finished, you know, five weeks ahead of schedule because that's the kind of person I am. I think I've had to change umm...I've had to change what I think is important to me as a person which usually is being very organized and I'm kind of proud of myself on, you know, having things done ahead of schedule, and you just have to learn that's just not going to happen, and once you come to that realization, which is stress, you come to realize that, then I think a lot of your problems will go away.

OKAY. UMM...DO YOU HAVE ANY FINAL STATEMENTS YOU WANT TO SAY ABOUT GRADUATE STUDENT STRESS IN GENERAL, OR...

I think that it's good that you're talking about it because it's one thing when I applied for the programme that I didn't consider at all, in here...oh, it's going to be tough, and then that's it and there it is. But, I don't think you really compute it to yourself the sort of change it's going to make on your life. Not just the fact you're going to be at school that many hours in a day, but how you might really be changing the way you do things in your life, as in your approach to things, or the way you feel about things right away...like I'm thinking of uh...if I in fact am the type of person who always wants things done a month, three months ahead of schedule and be really organized and I can't operate that way, I think that's good to know coming in. I think it's good to be aware that there may be psychological things you'll notice that you may, who knows have itchy eyes...

LOSE YOUR APPETITE.

Or lose your appetite or whatever happens to you, but I don't think that was thought of and I, I don't know, I mean I don't know very much about it, whether...are men affected this way, or they don't care about it, because there aren't very many women in business school that nobody even talks about it, or is everybody affected but they don't talk about it, or.......

I ONCE SAW A BUMPER STICKER THAT SAID, "IS THERE LIFE AFTER MED SCHOOL?" I THOUGHT IT WAS REALLY GOOD. WHAT KIND OF BUMPER STICKER WOULD YOU MAKE FOR AN MBA?

Well, I know what my licence plate's going to say on the car, it's going to say FINALLY. Finally everything, finally I'm finished and I have a car, that about sums it up. I don't, I think that is appropriate because I think in school, it's probably like being in a cult of some sort and the fact that you're all there together, you've gone through this orientation process together where you've been kind of dehumanized, and umm...brought down to this very base level, and you do these somewhat ridiculous stunts in front of your peers, and then suddenly you're part of the group, and it's kind of like an indoctrination procedure, you know, a little bit, I think certainly more for the undergrads than for the graduate students. But it still happens, and then you live in this kind of incubator with these people for two years until you emerge and you're set free and all these security blankets are suddenly stripped from you and I, I don't know I think it's uh...maybe good therefore the fact that you have all these other extracurricular activities that you participate in so that you still have kept up your contacts in other areas so that when you're suddenly set free, you can act and do everything that you've been supposedly uh...you know, educated and able to perform.

RIGHT. ARE YOU EMERGING FROM THAT INCUBATOR THE SAME PERSON?

No. No. I think I'm, I think I'm different, I think uh...different as far as, you know, the amount of knowledge, supposed knowledge that one has. I think also different just because you're exposed to different people that come into the programme. Ummm...I think had I not been in this programme I would never be sitting beside classrooms full of engineers and being on production cases with them and listening to somebody else's approach to doing something. Because I think in an undergraduate programme I think often people tend to be quite a bit like yourself, you've all made decisions not only to go on to higher education, but to go on to higher education in the field of, who knows, psychology...and here you all are sitting around these groups of people and I think you have an approach that you take from that kind of background and then umm...I think one of the most beneficial things about the programme has taught me is just because I think, given my background, that this is the way we should approach it, that's not always the right way. It may be right for some cases, but gee...we should consider this side, and this side of it, and this side of it, and uh...and I think that's probably one of the most vital things that the programme teaches you that you have to come out a different person, otherwise what's the point of being in it if you emerge exactly the same person.

ANYTHING ELSE AT ALL.

No, I don't think so.

THANK YOU VERY MUCH.

Oh, you're welcome.

IN A SUBSEQUENT TELEPHONE CONVERSATION THIS SUBJECT GAVE VERBAL CONSENT TO HAVE HER COMPLETE INTERVIEW TRANSCRIPT INCLUDED IN THIS THESIS.